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# HITACHI

## Inspire the Next



## PLASMA TELEVISION

### Operating Guide for P50V702

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READ THE ENCLOSED INSTRUCTIONS CAREFULLY.  
KEEP THIS OPERATING GUIDE FOR FUTURE REFERENCE.  
Record the serial number of your Plasma Television for future reference.  
SERIAL NO. \_\_\_\_\_

This information is located on the back and right side of the television.

## ULTRAVISION



# Important Safety Instructions



## SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI PLASMA TELEVISION

Our reputation has been built on the quality, performance, and ease of service of Hitachi plasma televisions.

Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your Hitachi plasma television.

Please fill out your warranty card and mail it to Hitachi. This will enable Hitachi to notify you promptly in the improbable event that a safety problem should be discovered in your product model. Model and serial numbers are indicated on back side and right side of the plasma television.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of a sufficient magnitude to constitute a risk of electric shock to a person.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### READ BEFORE OPERATING EQUIPMENT

Follow all warnings and instructions marked on this plasma television.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid

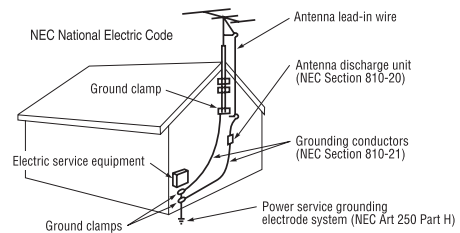


has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Televisions are designed to comply with the recommended safety standards for tilt and stability. Do not apply excessive pulling force to the front, or top, of the cabinet which could cause the product to overturn resulting in product damage and/or personal injury.
16. Follow instructions for wall, shelf or ceiling mounting as recommended by the manufacturer.
17. An outdoor antenna should not be located in the vicinity of overhead power lines or other electrical circuits.
18. If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding for the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

#### NOTE

To the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-44 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



### Power source

This plasma television is designed to operate on 120 volts 60 Hz, AC current. Insert the power cord into a 120 volt 60 Hz outlet. The mains plug is used as the disconnect device and shall remain readily operable.

To prevent electric shock, do not use the plasma television's (polarized) plug with an extension cord, receptacle, or other outlet unless the blades and ground terminal can be fully inserted to prevent blade exposure.

Never connect the plasma television to 50 Hz, direct current, or anything other than the specified voltage.



#### Caution

Never remove the back cover of the plasma television as this can expose you to very high voltages and other hazards. If the television does not operate properly, unplug the plasma television and call your authorized dealer or service center.

Adjust only those controls that are covered in the instructions, as improper changes or modifications not expressly approved by Hitachi could void the user's warranty.

# Important Safety Instructions



## Warning



- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The plasma television should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the television.
- This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

## Public viewing of copyrighted material

Public viewing of programs broadcast by TV stations and cable companies, as well as programs from other sources, may require prior authorization from the broadcaster or owner of the video program material.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized, and is intended for home and other limited payper-view uses only unless otherwise authorized. Reverse engineering or disassembly is prohibited.

## About your Plasma TV

This digital television is capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. Certain advanced and interactive digital cable services such as video-on-demand, a cable operator's enhanced program guide and data-enhanced television services may require the use of a set-top box. For more information call your local cable company.

## Prevention of screen damages (Image Retention)

Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (non-moving) patterns can be permanently imprinted onto your TV screen. Such "**SCREEN DAMAGES**" constitute misuse and are **NOT COVERED** by your **Hitachi Factory Warranty**. For more information about how to prevent screen damages please refer to page 43.

If still images are left on the screen for more than 2.5 minutes, protection function will work automatically so that contrast reduces to minimize image retention on the plasma display panel.

Please note that this is not a malfunction but it helps to minimize image retention.

The original contrast will restore after moving images are displayed for about 6 minutes. Original contrast can be restored quickly by turning power On/Off with remote control or power switch on unit.

## Lead Notice

This product contains lead. Dispose of this product in accordance with applicable environmental laws. For product recycling and disposal information, contact your local government agency or [www.eRecycle.org](http://www.eRecycle.org) (in California), the Electronic Industries Alliance at [www.eiae.org](http://www.eiae.org) (in the US) or the Electronic Product Stewardship Canada at [www.epsc.ca](http://www.epsc.ca) (in Canada).

**FOR MORE INFORMATION, CALL 800-HITACHI.**

## FEDERAL COMMUNICATIONS COMMISSION NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :

(1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

## Modifications



The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc, may void the user's authority to operate the equipment.

## Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

### NOTE

*This Plasma Television receiver will display television closed captioning, (  or  ), in accordance with paragraph 15.119 and 15.122 of the FCC rules.*

## INDUSTRY CANADA AGENCY REGULATORY INFORMATION

Cable Compatible Television Apparatus- Télévision câblocompatible, Canada.

# CHILD SAFETY:

It Makes A Difference How and Where  
You Use Your Flat Panel Display

Congratulations on your purchase! As you enjoy your new product, please keep these safety tips on mind:



### THE ISSUE

- The home theater entertainment experience is a growing trend and larger flat displays are popular purchases. However, flat panel displays are not always supported on the proper stands or installed according to the manufacturer's recommendations.
- Flat Panel displays that are inappropriately situated on dresser, bookcases, shelves, desks, speakers, chest or carts may fall over and cause injury.

### HITACHI CARES!

- The consumer electronics industry is committed to making home entertainment enjoyable and safe.

### TUNE INTO SAFETY

- One size does NOT fit all. Follow the manufacturer's recommendations for the safe installation and use of your flat panel display.
- Carefully read and understand all enclosed instructions for proper use of this product.
- Don't allow children to climb on or play with furniture and television sets.
- Don't place flat panel displays on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on a "larger than life" flat panel display. Care should be taken to place or install the display where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the flat panel display so that they cannot be pulled or grabbed by curious children.

### WALL MOUNTING: IF YOU DECIDE TO WALL MOUNT YOUR FLAT PANEL DISPLAY, ALWAYS:

- Use a mount that has been recommended by the display manufacturer and/or listed by an independent laboratory (such as UL, CSA, ETL).
- Follow all instructions supplied by the display and wall mount manufacturers.
- If you have any doubts about your ability to safely install your flat panel display, contact your retailer about professional installation.
- Make sure that the wall where you are mounting the display is appropriate. Some wall mounts are not designed to be mounted to walls with steel studs or old cinder block construction. If you are unsure, contact a professional installer.
- A minimum of two people are required for installation. Flat panel displays can be heavy.





# Energy Saving Features

Congratulations on purchasing a ENERGY STAR® qualifying product.

This Hitachi product as shipped from the factory meets the United States Environmental Protection Agency (EPA) requirements established for both “On” and “Standby” Operation.

Certain features and functionality provided in this product may result in increased energy use beyond that intended by the ENERGY STAR program.

Those features and functions which, when adjusted away from factory settings may cause increased or decrease energy use, are described below:

**Energy Savings Initial Settings:** HOME mode will meet ENERGY STAR requirements, RETAIL mode will increase energy consumption.

**Picture Mode:** Day setting will decrease energy consumption. Dynamic setting will increase energy consumption.

**Contrast:** Decreasing this setting will lower energy consumption.

**Brightness:** Decreasing this setting will lower energy consumption. Increasing this setting will increase energy consumption.

**Color Temperature:** Set to High will increase energy consumption. Set to other modes will decrease energy consumption.

**Light Sensor:** Set to On will increase or decrease energy consumption depending on the room brightness. For Low room brightness it will decrease energy consumption and for High room brightness it will increase energy consumption. Set to Off, energy consumption will depend on contrast mode setting.

**Contrast Mode:** Dynamic setting will increase energy consumption, Normal mode will decrease energy consumption.

**Black Side Panel:** Set to ON it will decrease energy consumption.

**Reset Video Settings:** When in HOME mode if this option is selected, energy consumption will remain within ENERGY STAR requirements, if in RETAIL mode this setting will increase energy consumption.

**TV Guide On Screen™ System.** When this feature is setup it will operate under standby conditions to continuously update channel and program listing which will increase the energy consumption of your TV. Desactivated this feature will help you reduce energy consumption.

**Picture Energy Saving:** All 3 level settings (Min, Medium, Max) will help reduce energy consumption, being Max setting the best saving energy level.

**Auto Sync. Saving:** Activating this feature will decrease energy consumption.

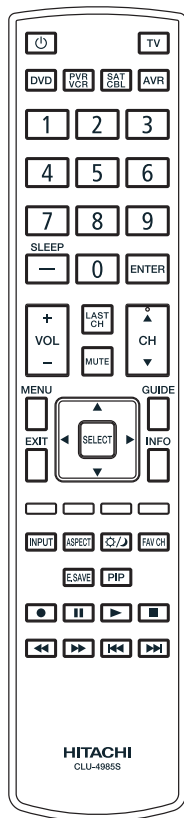
**Auto TV Off:** Activating this feature will decrease energy consumption.

**Switch between Home and Retail Mode Energy Saving Settings:** Selecting HOME will help reduce energy consumption to meet ENERGY STAR requirement. Selecting RETAIL will increase energy consumption.

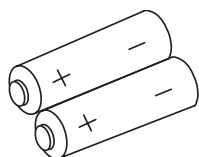
# Accessories

Check to make sure you have the following accessories before disposing of the packing material.

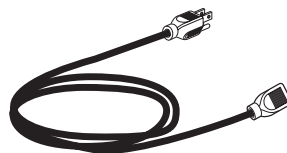
- ① Remote Control Unit  
CLU-4985S  
(Part No. HL02565)



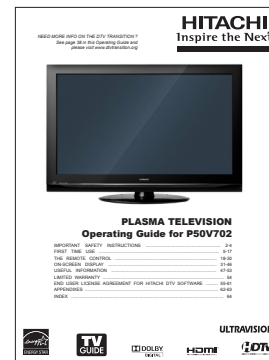
- ② “AAA” Size  
Batteries (2)



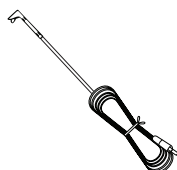
- ③ Power Cord  
(Part No. EV01841  
or EV02351)



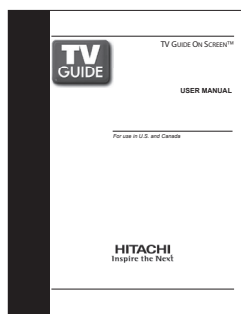
- ④ Operating  
Guide



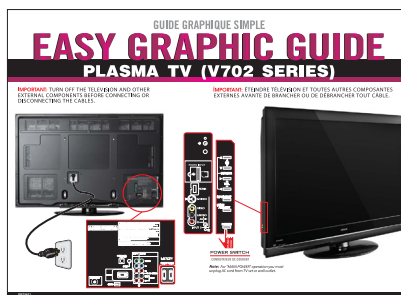
- ⑤ IR Cable  
(Part No. EY01881)



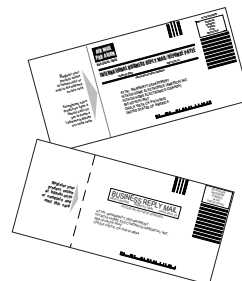
- ⑥ TV Guide  
User Manual



- ⑦ Easy Graphic Guide



- ⑧ Warranty cards



For optional accessories, please access our web site at: [www.hitachi.us/tv](http://www.hitachi.us/tv)

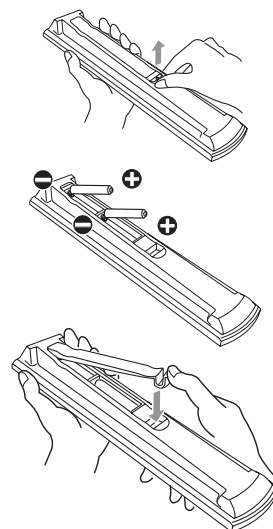


- Ceiling mounting is not recommended. Mounting the panel on the ceiling does not provide adequate ventilation for the electronics or proper support for the front glass panel. This plasma television product is designed for a maximum tilting angle of 45 degrees from vertical.
- Please see page 8 for important information related to wall mounting.

## REMOTE CONTROL BATTERY INSTALLATION AND REPLACEMENT

The remote control operates on 2 “AAA” batteries.

1. Open the battery cover of the remote control by pushing and pulling it in the direction of the arrow.
2. Insert two new “AAA” size batteries for the Remote Control. When replacing old batteries, push them towards the springs and lift them out.
3. Match the batteries to the (+) and (-) marks in the battery compartment.
4. Insert the bottom of the battery, the (-) side, into the battery compartment first, push towards the springs and insert the top of the battery, the (+) side, into place. Do not force the battery into the battery compartment.
5. Close the battery cover making sure the tabs rest in the corresponding holes and push down the cover until it clicks shut.



- Do not insert batteries with ‘+’ and ‘-’ polarities reversed as this may cause the batteries to swell or rupture resulting in leakage.
- Never mix used and new batteries in the device.
- Replace all the batteries in the device at the same time.
- Remove the batteries if the remote control is not going to be used for an extended period of time.

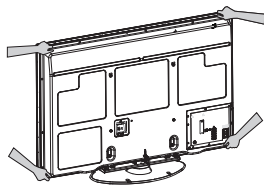
# How To Install Your New Hitachi Plasma Television

To take measures to prevent the Plasma Television from tipping over and prevent possible injury it is important to mount the unit in a stable and flat surface.

## Caution when moving the main unit

As this product is heavy, whenever it is moved, at least two people are required to transport it safely. Whenever the unit is moved it should be lifted forward using the top and base on both sides of the Television for stability.

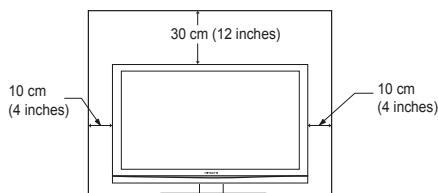
When moving the Television, lift from the corners, then support the top frame as shown below.



## Location

Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. If so, drapes or screens can be used to reduce the reflection.

Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the set. In order to prevent an internal temperature increase, maintain a space of 10 cm (4 inches) from the sides/back of the Television, and 30 cm (12 inches) from the top of the television to the ceiling. To avoid cabinet warping, cabinet color changes, and increased chance of set failure, do not place the TV where temperatures can become excessively hot, for example, in direct sunlight or near a heating appliance, etc.

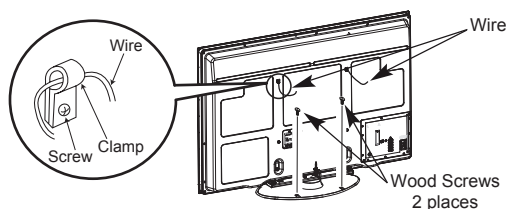


## Securing to a Table-Top

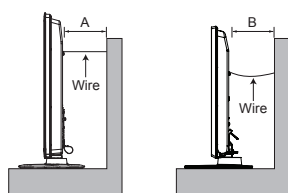
- Using 2 commercially available wood screws fasten the set through the clamping screw holes on the rear of the Plasma Table Top Stand as shown below.

## Securing to a Wall

- Using metallic wire (two places) fasten the set to the clamping screw on the rear of the Plasma TV as shown below.



- Keep the Plasma television 4 inches away from the wall except when mounted using the wall mount bracket and secure to the wall as shown below:



	A	B
50"	4 in.	12 in.
	10 cm.	30 cm.

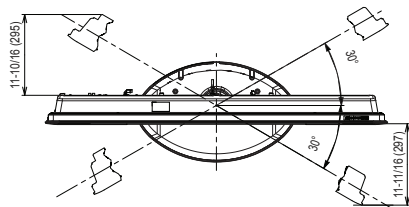
A: Power Swivel NOT USED  
B: Power Swivel USED

## NOTE

Please adjust the wire length to avoid touching the wall when turning the TV.

## Turning Angle

The maximum turning angle is 30° (left and right). Do not place any objects in the path of the television when using the power swivel feature.



## NOTES

- Do not block the ventilation holes of the Plasma Television. Blocking the ventilation holes might cause fire or defect.
- In case of an abnormal symptom, unplug the AC cord and contact 800-HITACHI.
- If you purchased a wall mount bracket, please ask for professional installer. Do not try to install by yourself.
- Install the unit at a proper area where it does not expose anyone to any danger of hitting themselves (for example their hands, head or face, etc.) against the edge of the unit that could cause personal injury.

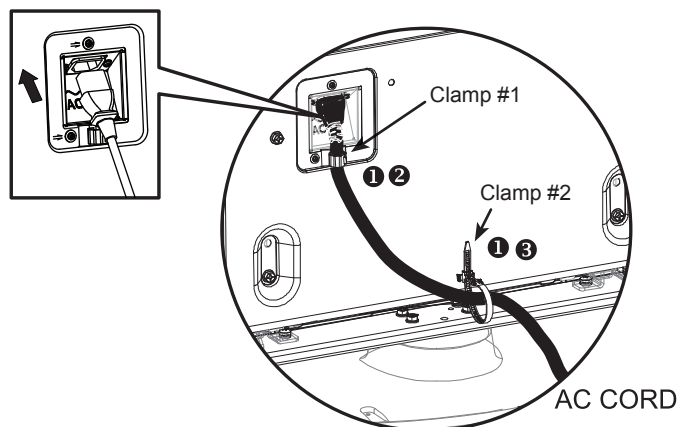


## AC Cord Installation

The AC cord provided with your new Plasma Television needs to be installed correctly to avoid its disconnection when rotating the TV on its Table Top Stand.

Located on the back of the TV there are 2 plastic clamps to hold the AC cord. Please follow the instructions below.

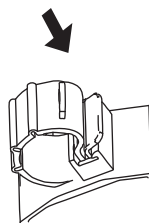
- Pass the AC cord through Clamp #2 and then Clamp #1 and connect it to the TV.
- Close clamp #1 to fix the AC cord to the TV.
- Pull on clamp #2 to tighten the AC cord to the TV.



## How to secure Clamp #1

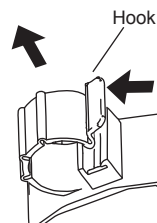
### To SET

Set the clamp in the direction of the arrow



### To UNFASTEN

Loosen the hook and pull in the direction of the arrow

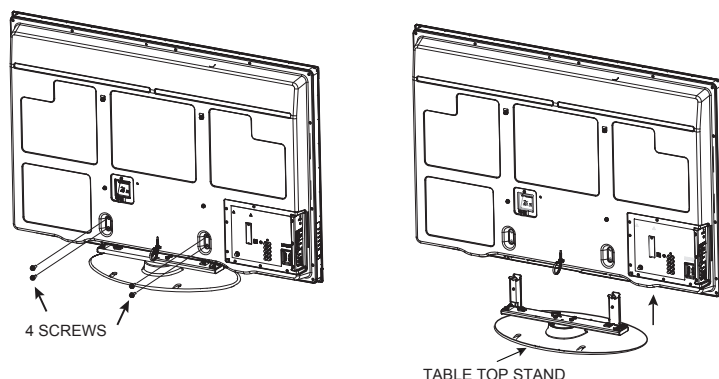


# How To Install Your New Hitachi Plasma Television

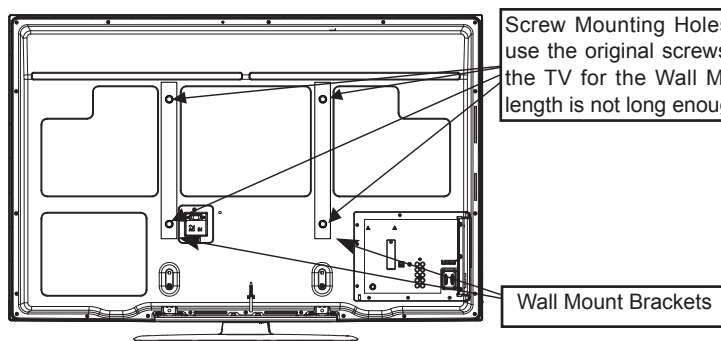
## WALL MOUNTING SETUP

### STEP (1) : REMOVE THE TABLE TOP STAND FROM THE PLASMA TELEVISION

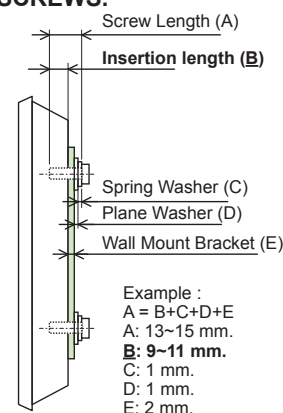
Please remove the 4 screws shown below in order to separate the TV from the Table Top Stand. Now the Table Top Stand can be separated from the TV. Useful dimensions for the WALL MOUNT assembly are in page 53.



### STEP (2) : INSTALL THE WALL MOUNT BRACKETS ON THE PLASMA TELEVISION USING 4 SCREWS.



- For Wall Mount assembly; please refer to the Installation Manual of the Wall Mount Unit.



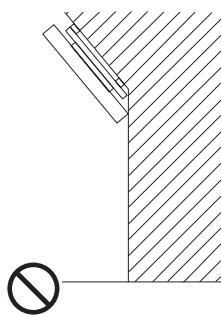
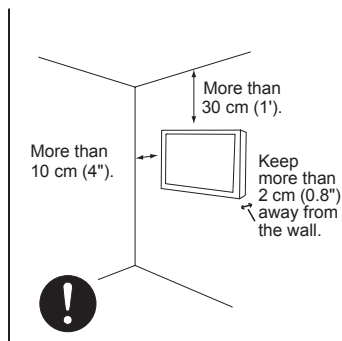
- The screw type :Thread ISO M6 (Metric type, do not use Standard type).



### CAUTION

Insertion length (B) of the screws must be within 9~11 mm. If the length is less than 9mm, the weight can not be maintained. If the length is more than 11mm, a space is created between the Wall Mount Bracket and the Plasma Television. This length is **very important**.

### STEP (3) : TIPS TO CONSIDER FOR THE LOCATION OF THE PLASMA TELEVISION.



### CAUTION

• Do not block the ventilation holes. In addition please keep a certain distance around and make sure not to obstruct ventilation. Blocking the ventilation holes might cause fire or defect.

- If you purchased the Wall Mount unit, please ask for a professional installer. Do not install by yourself.
- This plasma unit features an advanced ventilation system configured for vertical installation. A knowledgeable and experienced professional technician can perform other mounting or installation orientations (e.g., horizontal, tilted) provided that you specifically inform the technician of the unit's specialized ventilation needs. Call 800-HITACHI for additional info and guidance.



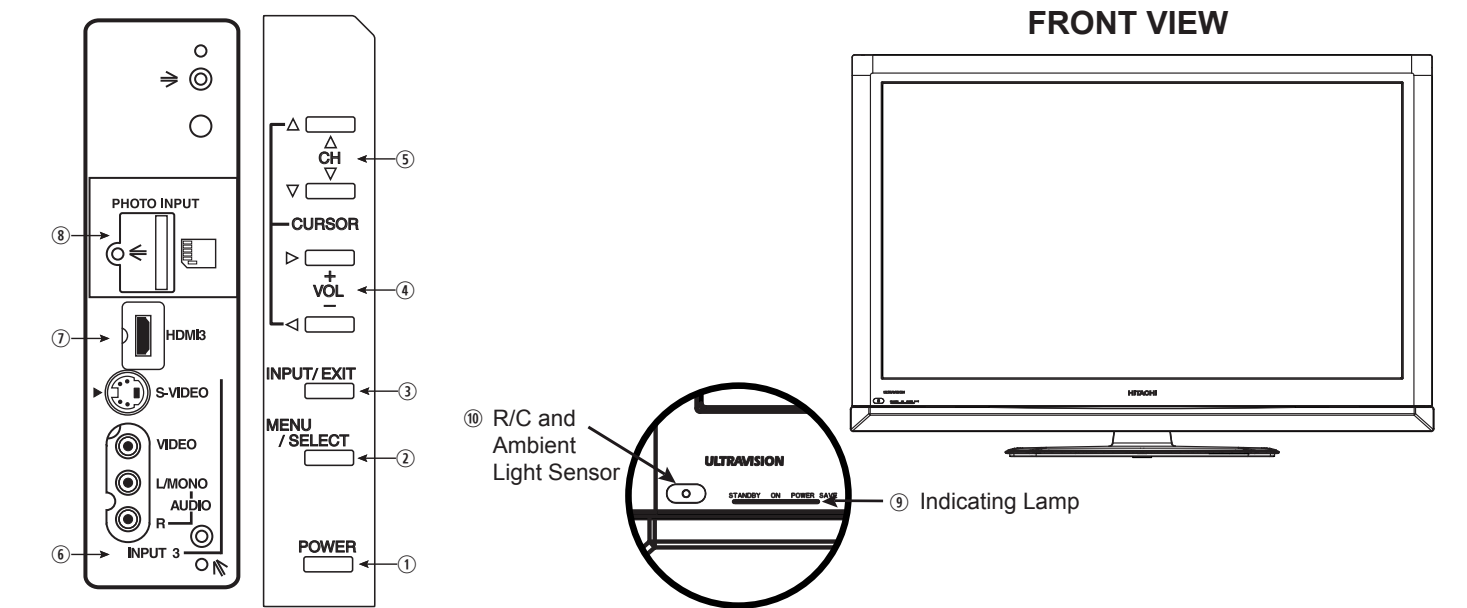
### CAUTION

- Although this Plasma Display Panel can be installed using a variety of third party wall mounting brackets/devices, such third party brackets/devices have not been tested or approved by Hitachi for use or compatibility with this Plasma Display Panel. Accordingly, Hitachi accepts no responsibility or liability for any injuries or property damage resulting from the use of such third party brackets/devices. Hitachi strongly

advices that any installation of this Plasma Display Panel using wall mounting brackets/devices be performed only by a qualified and experienced television installation technician who has completed a thorough evaluation of:

- a) the weight-bearing strength and stability of the intended wall mount surface; and
- b) the weight-bearing strength and compatibility of the intended wall mount brackets/device.





- ① **POWER switch**  
This power switch is for the complete system. It is recommended to leave this POWER switch to ON condition (lights red) for stand-by mode.
- ② **MENU/SELECT button**  
This button allows you to enter the MENU, making it possible to set TV features to your preference without using the remote. This button also serves as the SELECT button when in MENU mode.
- ③ **INPUT/EXIT button**  
Press this button to access the INPUT menu. This button also serves as EXIT button when in MENU mode.
- ④ **VOLUME level**  
Press these buttons to adjust the sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left (◀) and right (▶) buttons when in MENU mode.
- ⑤ **CHANNEL selector**  
Press these buttons until the desired channel appears in the top right corner of the TV screen. These buttons also serve as the cursor down (▼) and up (▲) buttons when in MENU mode.
- ⑥ **INPUT-3 (SIDE) JACKS**  
INPUT-3 provide composite Video and S-Video jacks for connecting equipment with this capability, such as a DVD player, Game Console or Camcorders.
- ⑦ **HDMI-3**  
Use this side HDMI input for AV Equipment such as Set-Top-Boxes or DVD players equipped with an HDMI output connection (see page 14 for reference).
- ⑧ **PHOTO INPUT/UPGRADE CARD**  
To view digital still pictures, insert a SD card into the card slot with pictures taken from a Digital Camera, to view them on the TV screen.  
Also this card slot is for future software upgrades. Hitachi

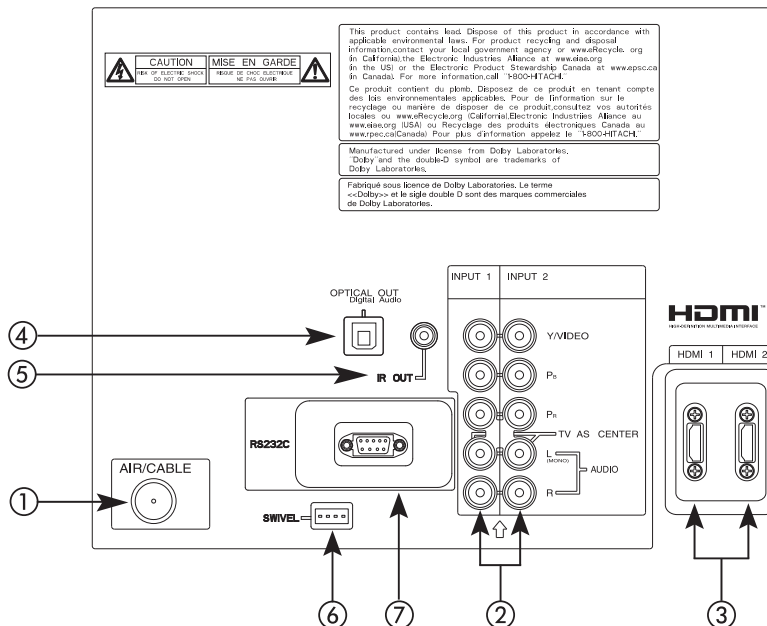
- will notify you if a software upgrade is required for your TV. In order to receive written notification, please complete and return your warranty card.
- ⑨ **POWER light indicator**  
To turn the TV ON, press the Power switch (①). A red stand-by indicator lamp located on the lower left corner of the front bezel will illuminate. The Plasma TV is now ready for remote ON/OFF operation.

Indicating Lamp	Power Status	Operating
Off	OFF	When the POWER switch (①) is set to OFF.
Lights Red	OFF (Stand-by)	When the POWER switch (①) is set to ON.
Lights Blue	ON	TV Power is ON; picture is shown.
Lights Orange	OFF (Power Saving)	TV Power is ON with no signal input except antenna (no sync. signal)
Blinking Blue	ON	When TV receives the IR signal from the RC.

- ⑩ **REMOTE CONTROL and AMBIENT LIGHT sensor**  
Point your remote at this area when selecting channels, adjusting volume, etc. This area also detects ambient light level for automatically brightness control of the screen.

- NOTES**
- Your HITACHI Plasma TV will appear to be turned OFF (lights orange) if there is no video input when INPUT 1, 2, 3, or HDMI 1, 2, 3 is selected. Check the Power Light to make sure the TV is turned off or in Stand-by mode (lights red) when not in use.
  - Remote Control cannot turn ON/OFF the TV when Power Switch is set to OFF.
  - If Power Light Indicator Brightness is set to OFF, the indicating lamp will not light when the TV turns ON. Please refer to page 45.
  - Please do not put anything around R/C and Ambient light sensor, as its function will be affected.

# Rear Panel Jacks



## ① Antenna Input

To switch between Cable and Air input, go to the Channel Manager option to change the signal source CABLE or AIR (see page 38).

## ② Component: Y-PBPR and Audio Inputs

INPUTS 1 and 2 provide Y-PBPR and Audio jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use COMPOSITE video signal for both inputs.

**HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.**

### NOTES

- The HDMI input is not intended for use with personal computers.
- Only DTV formats such as 1080p, 1080i, 720p, 480i and 480p are available for HDMI input.

### NOTES

- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's  $P_B$  input and the components R-Y output to the TV's  $P_R$  input.
- Your component outputs may be labeled Y-CbCr. In this case, connect the component  $C_B$  output to the TV's  $P_B$  input and the component  $C_R$  output to the TV's  $P_R$  input.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-PbPr inputs (see page 33).
- INPUT 1 and 2 (Y/VIDEO) can be used for composite video and component video input.

## ④ Optical Out (Digital Audio)

This jack provides Digital Audio Output from a HDMI source or digital program channel to your audio device that is Dolby® Digital and PCM compatible, such as an audio amplifier.

### NOTE

\*Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

## ⑤ IR Out

This jack provides IR output to your external components (VCR, Cable box, DVD player, etc.). This connection will allow you to control the external components with their original remote through your Hitachi Plasma Television. (For more detail see page 45 and the included Easy Graphic Guide).

## ③ HDMI 1, 2 (High Definition Multimedia Interface)

ABOUT HDMI – HDMI is the next-generation all digital interface for consumer electronics. HDMI enables the secure distribution of uncompressed high-definition video and multichannel audio in a single cable. Because digital television (DTV) signals remain in digital format, HDMI assures that pristine high-definition images retain the highest video quality from the source all the way to your television screen. Use the HDMI input for your AV Equipment such as Set-Top-Boxes or DVD players equipped with an HDMI output connection.



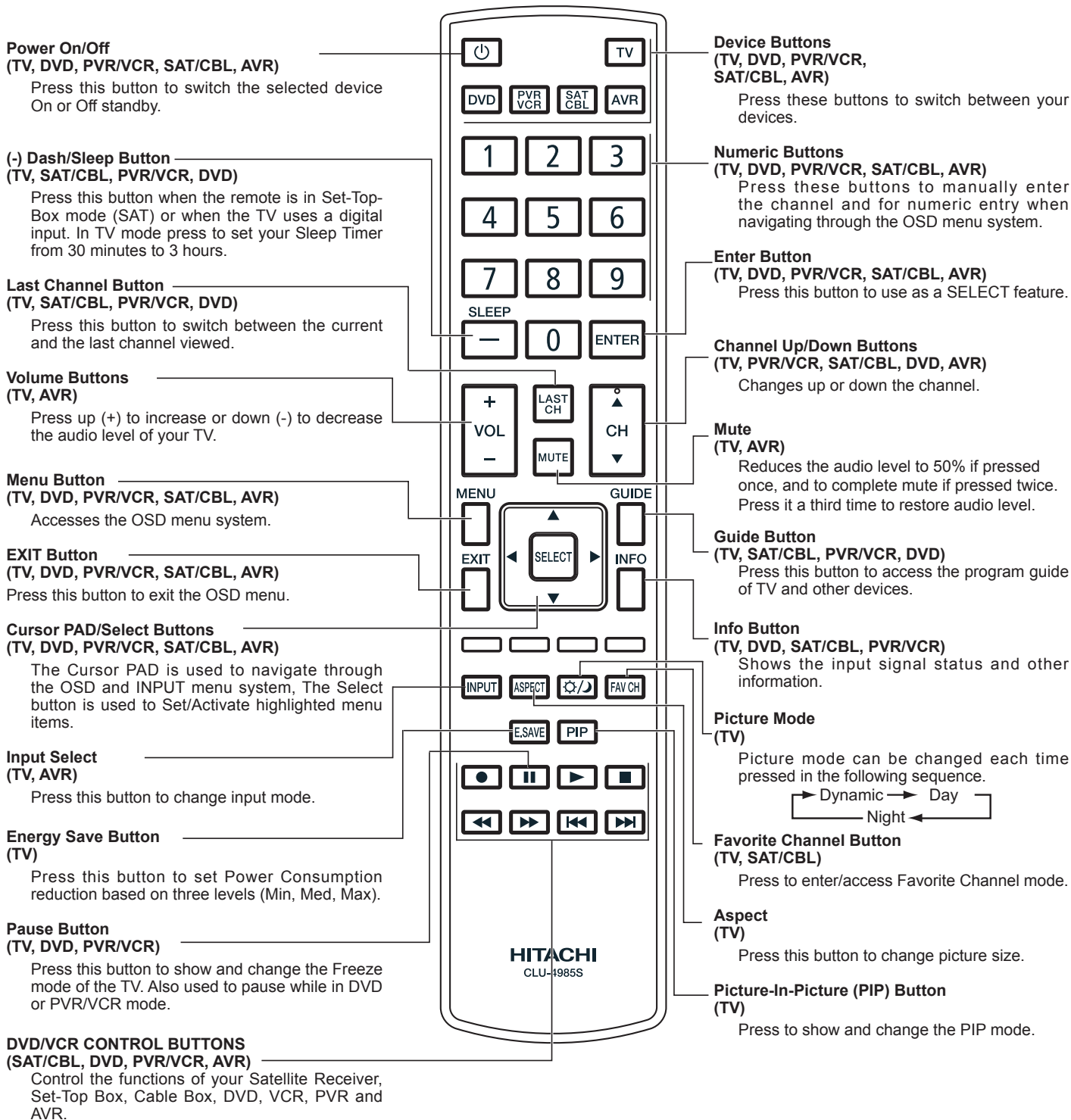
## ⑥ Power Swivel Connector

The Power Swivel cable is connected from here to the Table Top Stand Base swivel slot in order to use the Power Swivel feature (see page 32).

## ⑦ For Special AV control use only.

# Quick Reference Remote Control Buttons and Functions

In addition to controlling all of the functions on your Hitachi Plasma TV, the new remote control is designed to operate different types of devices, such as, DVD Players, CBL (Cable Boxes), set-top-boxes, satellite receivers, and VCRs. The remote control must be programmed to control the chosen device. Please see pages 18~30 for a complete description of all features and programming of the Remote Control.



## LEGENDS

TV - Television

DVD- Digital Video Disc Player

AVR - Audio/Video Receiver

VCR - Video Cassette Recorder

SAT - Satellite Receiver

PVR - Personal Video Recorder

CBL - Cable Box

## NOTE

- The TV's remote control sensor is located on the left bottom portion of the TV screen. To control TV functions, please point the remote control directly at the sensor for best results.
- Pressing any button will illuminate the backlight for 4 seconds.

# Quick Setup Guide

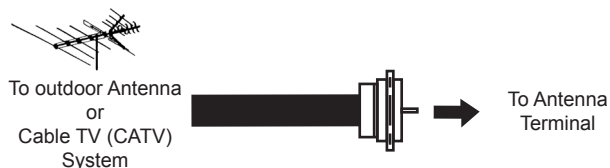
Perform the following steps to quickly setup your new Hitachi Plasma Television Set.

## 1. ANTENNA CONNECTION

Unless your Plasma Television is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna may be sufficient.

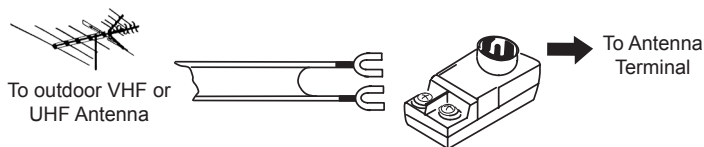
### a). VHF (75-Ohm) antenna/CATV (Cable TV)

When using a 75-Ohm coaxial cable system, connect CATV coaxial cable to the AIR/CABLE (75-Ohm) terminal. Or if you have an antenna, connect the coaxial cable to the same AIR/CABLE terminal.



### b). VHF (300-Ohm) antenna/UHF antenna

When using a 300-Ohm twin lead from an outdoor antenna, connect the VHF or UHF antenna leads to screws of the VHF or UHF adapter. Plug the adapter into the antenna terminal on the TV.

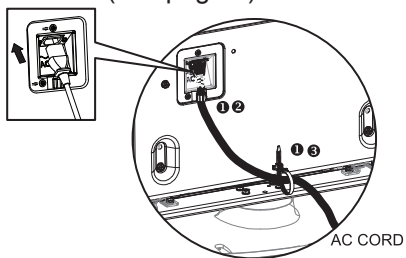


#### NOTE

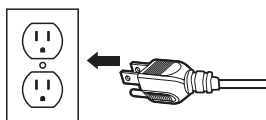
Connecting a 300-Ohm twin lead connector may cause interference. Using a 75-Ohm coaxial cable is recommended.

## 2. CONNECT YOUR NEW HITACHI PLASMA TV TO THE POWER SOURCE

a). Connect the power cord to your TV set and secure it with the cable tie (see page 7).



b). Connect the power cord to the AC Wall outlet.



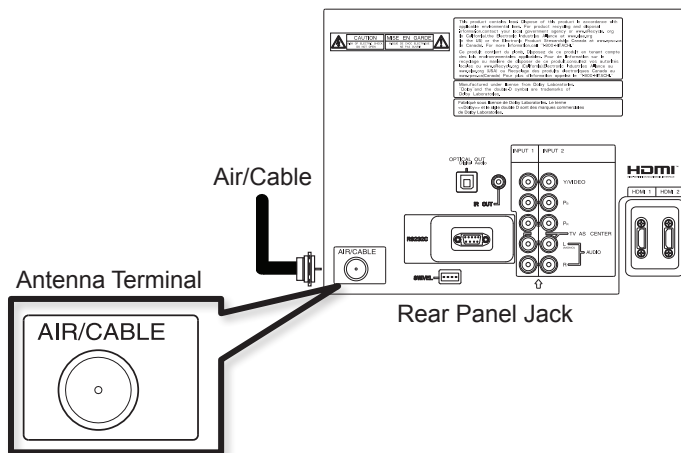
## 3. POWER ON/OFF YOUR NEW HITACHI PLASMA TV.

Press the POWER button on the Remote Control or the POWER switch on the Side Control Panel for power on/off (Stand-By mode).

#### NOTE

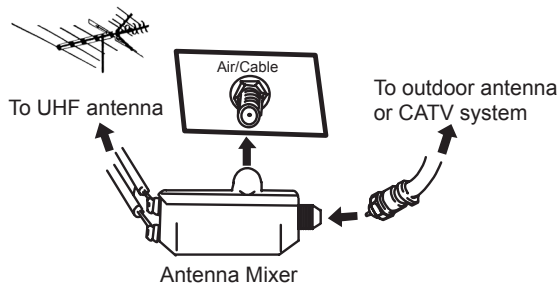
If the Power Switch is set to OFF, the Power Button on the Remote Control will not operate.

## 4. FOLLOW THE TV SETUP WIZARD INSTRUCTIONS ON NEXT PAGE.

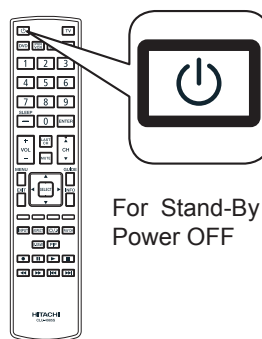
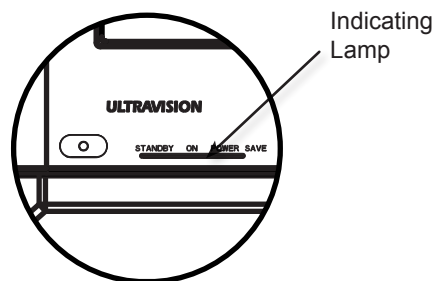


### c). When both VHF and UHF antennas are connected

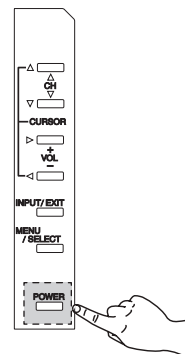
Attach an optional antenna cable mixer to the TV antenna terminal, and connect the cables to the antenna mixer. Consult your dealer or service store for the antenna mixer.



c). The Indicating Lamp will light Red (Standby mode) and then light blue (image displays).



or





# TV Setup Wizard

This television has a TV Guide On Screen™ feature which has the ability to show you a customized list of the programs on a weekly basis and channels available in your area. The information for the guide is broadcast on different channels in different areas. Please use this TV Setup Wizard to help TV Guide On Screen™ find the channels available in your area.

The First time you turn on your Hitachi Plasma TV the Energy Savings Initial Settings screen will appear. Please select either HOME or RETAIL mode settings to advance to the TV Setup Wizard screen. If you select HOME mode this will save energy and is intended for home use. RETAIL mode will set the Picture to Dynamic default Settings and the picture will be brighter. This setting is intended for showroom and shop use. If later you want to change the Energy Savings Initial Settings you can using the Setup Menu (refer to page 45).

## Energy Savings Initial Settings

Please Select HOME or RETAIL

☐ HOME ☐ RETAIL

HOME mode meets Energy Star™ guidelines and is best for home use.

RETAIL mode uses more energy and is intended for in-store display.

◀ Move **SEL** Select

**NOTE** RETAIL Mode is intended for showroom or shop use only, if you make adjustment changes in this mode they will not be saved when the TV is turned Off.

The TV Setup Wizard screen automatically starts after the Energy Savings Initial Settings Screen the first time the TV is turned on.

- NOTES**
- If you see the screen above when you turn on your TV for the first time and did not yet connect your external devices and cables to your TV, turn off your TV, unplug the power cord and connect your devices and cables according to the applicable connections in the "First Time Use" section of this Operating Guide.
  - After completing the TV Setup Wizard, these screens will not appear again. For updating and adding the channels available in your area refer to the Auto Channel Scan feature on page 38.

When the TV Setup Wizard appears on-screen, start by selecting Yes or No in the top portion of the TV Setup Wizard.

- Use the ◀ and ▶ CURSOR to select Yes or No and press the SELECT button on the remote control.

Do you want the TV to find all of the channels for the TV Guide On Screen™?

☒ Yes ☐ No

If **Yes** is selected proceed to step 2.

If **No** is selected, press the EXIT button on the remote control and

the TV Guide On Screen™ Setup screen will appear (refer to page 37).

- Press the ▼ CURSOR to move to the next window to select the source.

Source: ◀ Air ▶  
Please connect the antenna or cable to the input labeled "Air/Cable".

- Press the ▶ CURSOR to select Air, Cable(1) or Cable(2).

- Press the ▼ CURSOR to move to the next window to start the Auto Channel Scan.

Auto Channel Scan : **Start**

- Press the SELECT button on the remote control to begin scanning.

Air  
Scanning Channel Number : 12  
☐ Analog ☒ Digital 12-123  
Scan time may take 10 to 20 minutes

**Cancel**

When Auto Channel Scan is done the TV Guide On Screen™ Setup screen as shown below will appear (refer to page 37).

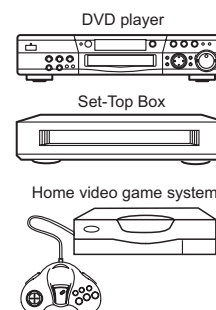


# Side Panel Connections

The following connection diagrams are offered as suggestions. However, you may need to modify them to accommodate your particular assortment of components and features. For best performance, video and audio cables should be made from coaxial shielded wire. The SIDE panel HDMI jack is provided as a convenience to allow you to easily connect HDMI or DVI signals from a DVD, Set-Top-Box, Video Game as shown in the following examples (When a DVI product is connected, a separate audio connection is necessary for audio. Use the side Audio input jacks for the audio connection).

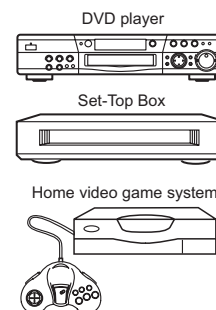
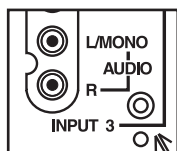
## A) Connecting HDMI signal

SIDE INPUT PANEL



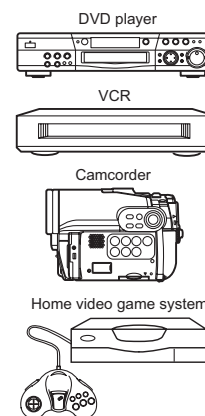
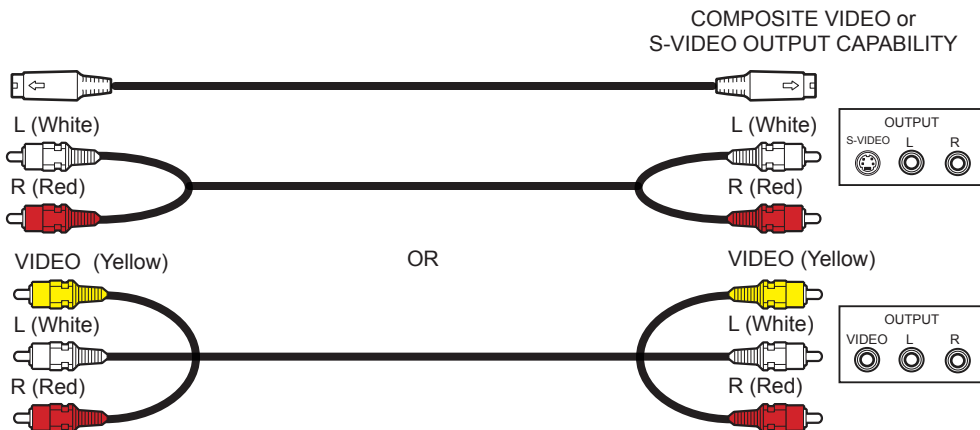
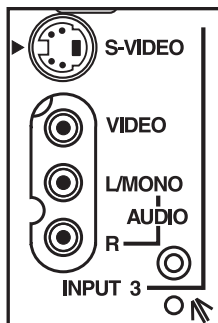
## B) Connecting DVI signal

SIDE INPUT PANEL



The SIDE panel VIDEO and S-VIDEO jacks are provided as a convenience to allow you to easily connect a camcorder, DVD, Video Game and a VCR as shown in the following examples. (When connecting S-VIDEO signal it will need to connect the audio output into the Side Audio Input jacks):.

SIDE INPUT PANEL



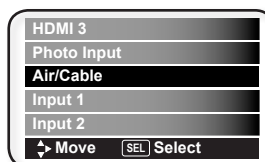
## NOTES

- Completely insert connection cord plugs when connecting to side panel jacks. If you do not, the played back picture may be abnormal.
- Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.
- When making video connections, connect S-Video only or Video only. If both are connected, S-Video takes priority.
- For Monaural devices, please connect Audio signal cable into L/Mono input jack .

The exact arrangement you use to connect the VCR, camcorder, DVD player, or HDTV Set-Top-Box to your Plasma TV is dependent on the model and features of each component. Check the operating guide of each component for the location of video and audio inputs and outputs.

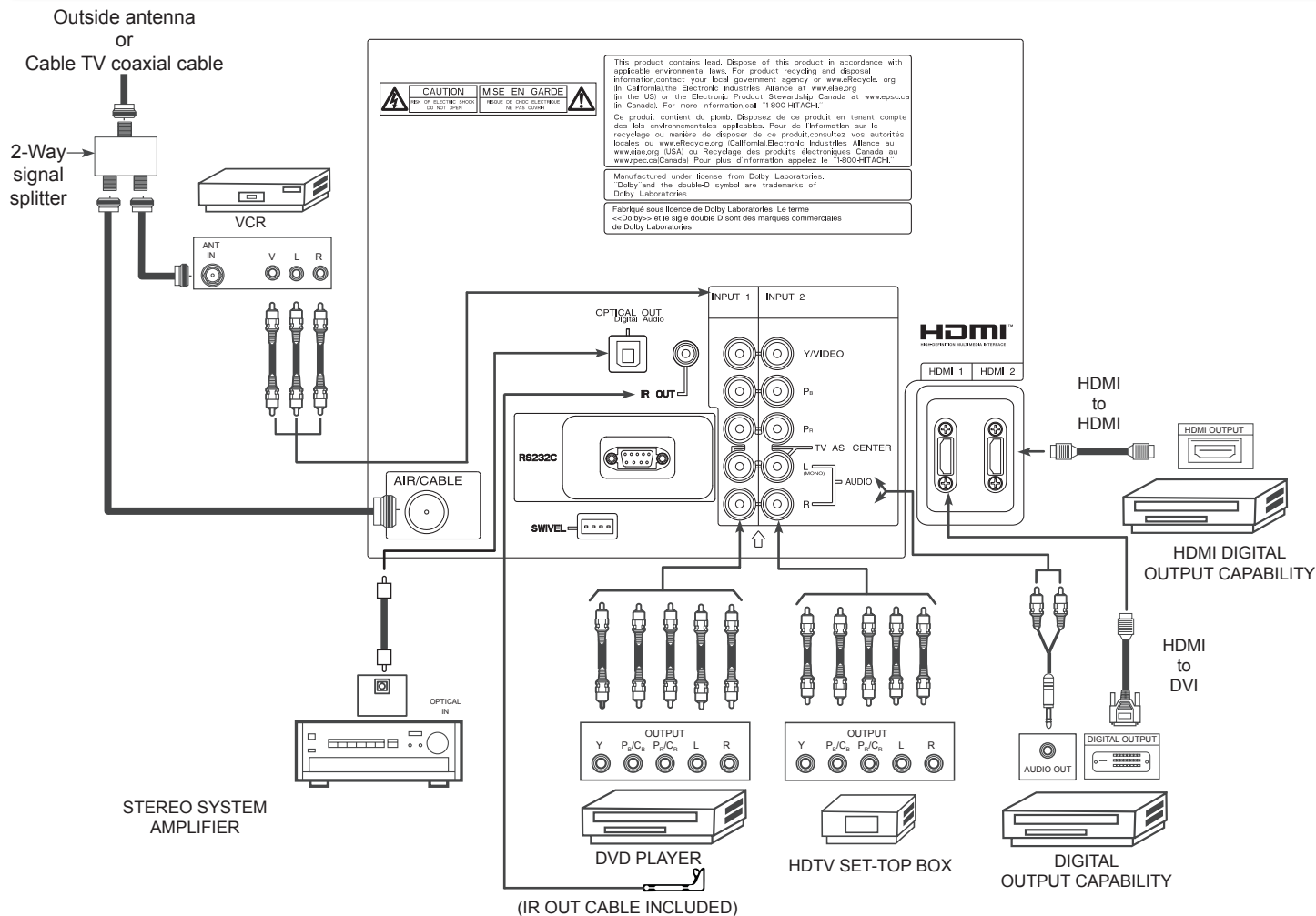
## Before Operating External Video Sources

Connect an external source to one of the INPUT terminals, then press the INPUT button to show the INPUTS menu. Use the CURSORS (▲ and ▼) to select the Input of your choice. Then press the SELECT button or the CURSOR ► to confirm your choice (see page 21).



Example: Selecting the Air/Cable (Antenna) Input

# Rear Panel Connections



**NOTE** Cables are optional, except when specified.

## TIPS ON REAR PANEL CONNECTIONS

- ◆ COMPONENT Y-PBPR (Input 1 & 2) or HDMI (1 & 2) connections are provided for high performance DVD players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.
- ◆ If your device has only one audio output (mono sound), connect it to the left audio jack on (L/(MONO)) the Rear Panel.
- ◆ Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.
- ◆ Connect only 1 component (VCR, DVD player, camcorder, etc.) to each input jack.
- ◆ Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's PB input and the components R-Y output to the TV's PR input.
- ◆ Your component outputs may be labeled Y-CBCR. In this case, connect the components CB output to the TV's PB input and the components CR output to the TV's PR input.
- ◆ It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-PBPR inputs. (See page 33).
- ◆ When using a HDMI input from a Set-Top-Box, it is recommended to use a 1080p, 1080i or 720p input signal.
- ◆ When HDMI input a 1080p signal, it is recommended that the length of the cable should be less than 5 meters.

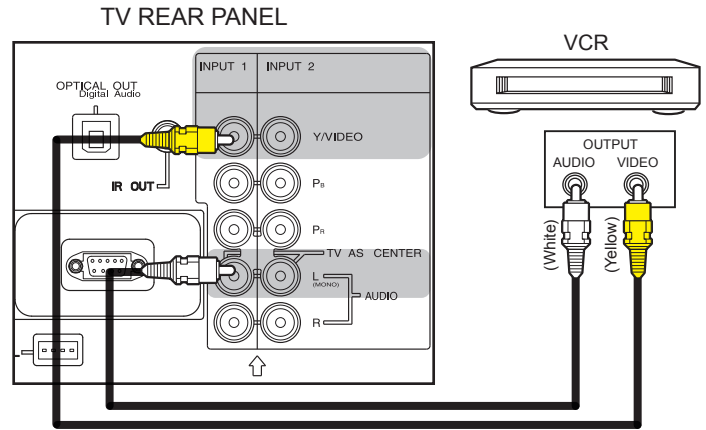
## NOTES

- Completely insert all connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
- Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.

# Rear Panel Connections

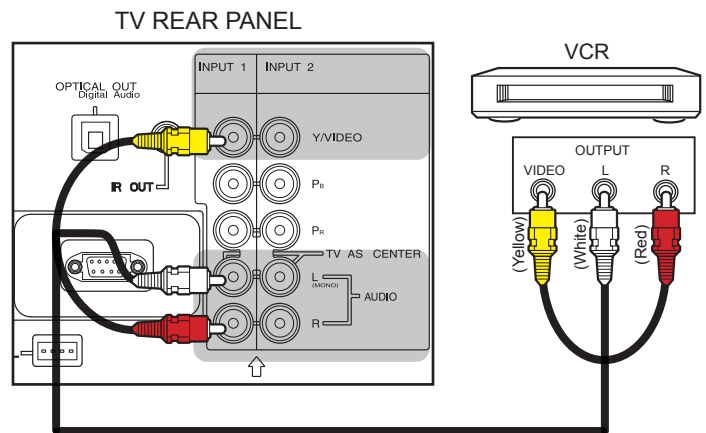
## CONNECTING A VIDEO AND MONAURAL AUDIO SOURCE TO INPUT 1 or 2

1. Connect the VIDEO and AUDIO cable from the VIDEO and AUDIO OUT jack of the VCR to the INPUT 1 or 2 (VIDEO) and (MONO)/L(AUDIO) jack, as shown on the Rear Panel on the right.
2. Press the INPUT button, then select INPUT 1 or 2 from the INPUTS menu to view the program from the VCR.



## CONNECTING A VIDEO AND STEREO AUDIO SOURCE TO INPUT 1 or 2

1. Connect the VIDEO and AUDIO cables from the VIDEO OUT and AUDIO OUT jacks of the VCR to the INPUT 1 or 2 (VIDEO) jacks. A VCR connection to Rear Panel Input 1 example is shown on the right.
2. Press the INPUT button, then select INPUT 1 or 2 from the INPUTS menu to view the program from the VCR.

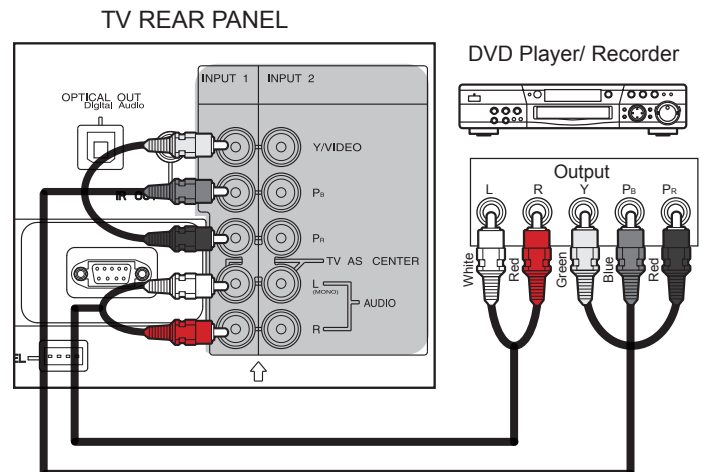


### NOTE

When INPUT 1 or 2 are used, it is necessary to connect the composite video output of the device to the Y/VIDEO input jack of the TV.

## CONNECTING A COMPONENT AND STEREO AUDIO SOURCE TO INPUT 1 or 2: YPBPR

1. Connect the Y, PB/CB, PR/CR and AUDIO cables from the Y, PB/CB, PR/CR OUT and AUDIO OUT jacks of the DVD PLAYER or HDTV Set-Top-Box to the INPUT 1 or 2 YPBPR and AUDIO jacks. A DVD connection to Rear Panel Input 2 example is shown on the right.
2. Press the INPUT button, then select INPUT 1 or 2 from the INPUTS menu to view the program from the DVD player or HDTV Set-Top Box.



### NOTES

- Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
- Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.
- To return to the last channel viewed, select CABLE or AIR from the INPUTS menu.



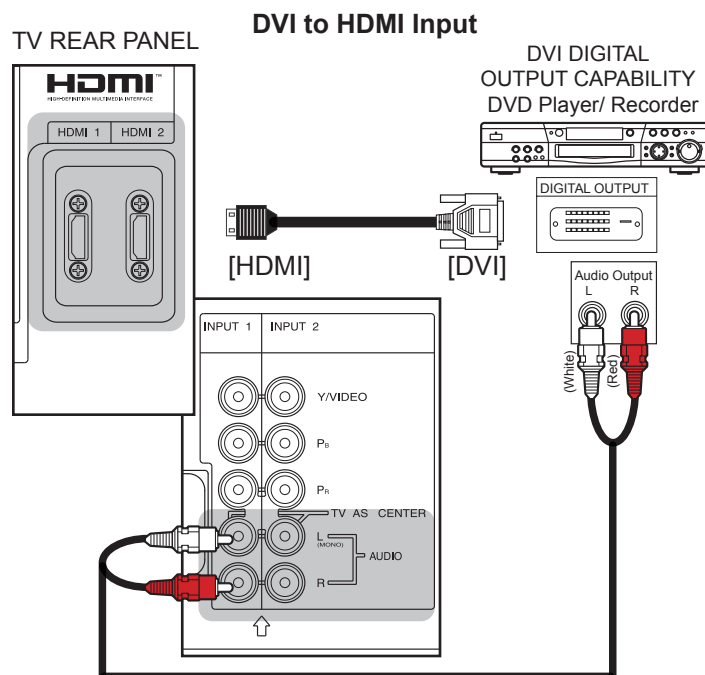
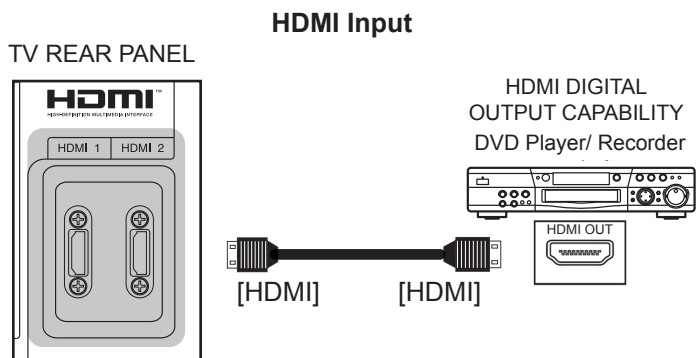
# Rear Panel Connections

## CONNECTING AN EQUIPMENT SOURCE WITH HDMI OR DVI CAPABILITY TO HDMI 1, HDMI 2

1. Connect the HDMI or DVI to HDMI connection cable from the output of the HDTV set top box or DVD player to the HDMI input as shown on the Rear panel right below figure.
2. With DVI output, connect the audio cables from the AUDIO OUT jack of the HDTV set top box or DVD player to the Rear Panel INPUT 1 or 2 AUDIO jacks as shown on the right.
3. Press the INPUT button, then select HDMI 1 or 2 to view the program from the HDTV SET-TOP BOX or DVD player.

### NOTES

- Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
- When using a DVI to HDMI cable, connect the Audio Out L and R cables at the same input (1, 2) as your HDMI input (1, 2).
- The HDMI input on HDMI 1, 2 and 3 contains the copy protection system called High-bandwidth Digital Content Protection (HDCP). HDCP is a cryptographic system that encrypts video signals when using HDMI connections to prevent illegal copying of video contents.
- HDMI is not a "NETWORK" technology. It establishes a one-way point-to-point connection for delivery of uncompressed video to a display.
- The connected digital output device controls the HDMI interface so proper set-up of device user settings determines final video appearance.

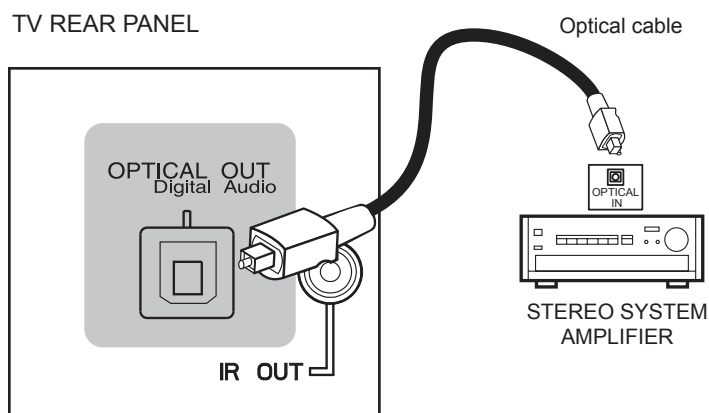


## CONNECTING AN EXTERNAL AUDIO AMPLIFIER

To monitor the audio level of the Plasma TV to an external audio amplifier, connect the system as shown on the right. The "OPTICAL OUT" from the Rear Panel is a fixed output. The Volume of the amplifier is controlled by the amplifier, not by the Plasma Television.

The OPTICAL OUT terminal outputs all audio sources to equipment with Optical IN capability.

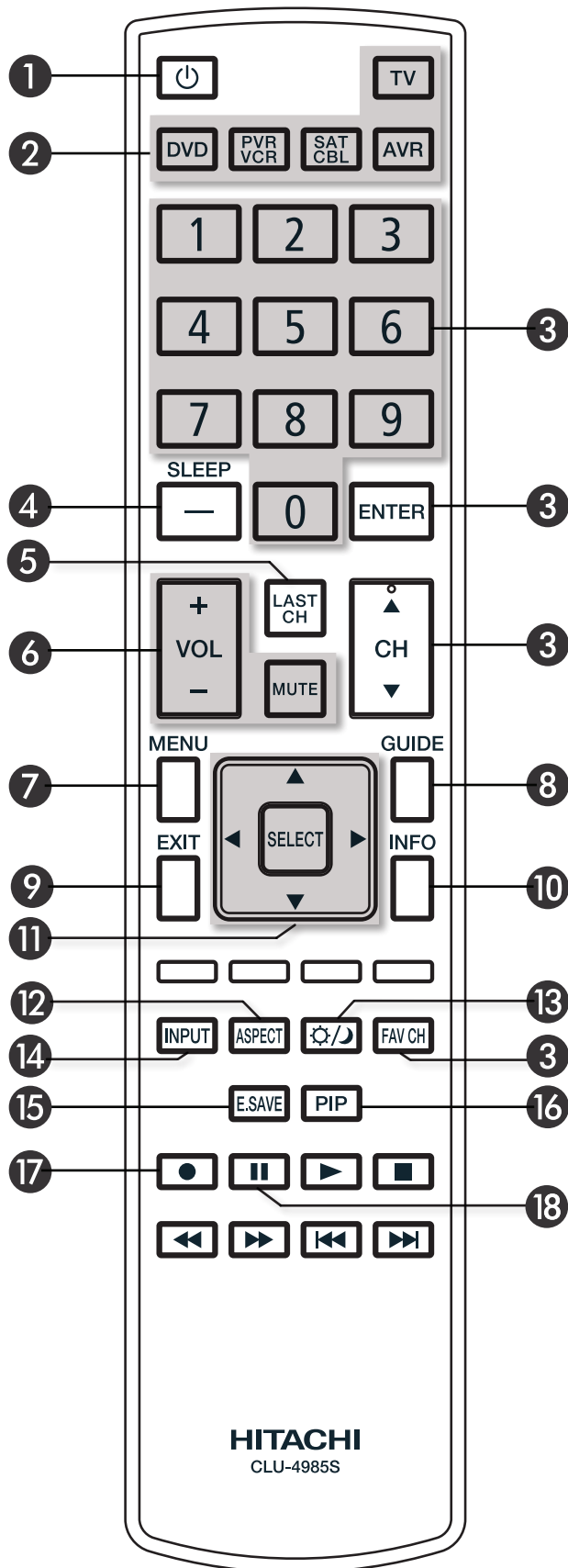
1. Connect an optical cable from the Optical out to the Optical input of a separate Stereo System Amplifier as shown on the Rear Panel on the right.



### NOTES

- Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
- Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.
- To return to the last channel viewed, select CABLE or AIR from the INPUTS menu.

# The Remote Control



## 1 POWER button

Press this button to turn the TV set on or off when the remote is in TV mode.

## 2 DEVICE buttons

In addition to controlling all the functions on your HITACHI Plasma TV, the new remote control is designed to operate different types of VCRs, cable boxes, set-top-boxes, satellite receivers, DVD players, and other audio/video equipment with one touch. Basic operation keys are grouped together in one area.

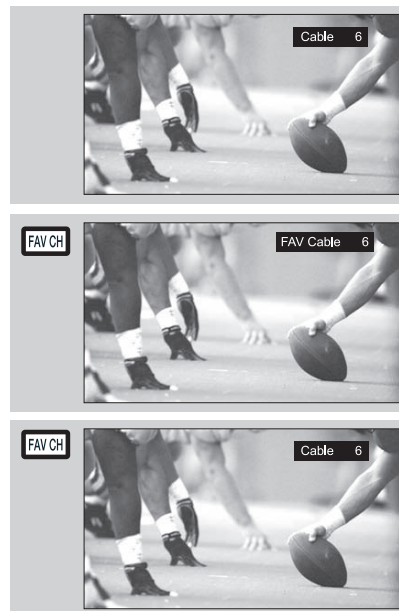
To operate your Plasma TV, select TV by pressing the TV button on the remote control. The TV mode indicator will blink, indicating that the remote will now control your television.

Repeat the same procedure for your DVD (press the DVD button), for your VCR/PVR (Personal Video Recorder) press the PVR/VCR button on the remote. For your cable box, set-top-box or satellite receiver (press the SAT/CBL button), for your Audio/Video System (press the AVR button). See pages 25~30 for instructions on how to program the remote to control your device.

## 3 CHANNEL SELECTOR / FAVORITE CHANNEL (FAV CH) / ENTER buttons

The CHANNEL SELECTOR buttons are used to select channels, lock access code, etc. Use the CHANNEL SELECTOR buttons to enter one, two, or three numbers to select channels. Enter 0 first for channels 1 to 9, or simply press the single digit channel you wish to tune then press the ENTER button for the TV to tune. Channel selection may also be performed by CHANNEL (CH) UP (▲) or CHANNEL (CH) DOWN (▼).

Press the FAV CH button to switch to Favorite(FAV) channel mode. You will know you are in Favorite Channel mode when (FAV) is displayed and the displayed channel is GREEN. Press it again to return to your regular tuned channels. You can add any channel to your Favorite channel list by pressing and holding down the FAV CH button until the displayed channel turns from WHITE to highlighted GREEN. You can also delete a channel from your favorite channel list by pressing and holding down the FAV CH button until the displayed channel turns highlighted GREEN to WHITE.



# How to Use the Remote to Control your TV

## 4 (-) DASH /Sleep Button

Use the (-) DASH button with the CHANNEL SELECTOR buttons to enter Digital Channels that have subchannel numbers indicated by (-) DASH (example 15-1). For TV mode only, press to Set the Sleep Timer from 30 minutes to 3 hours in 30 minutes increments.

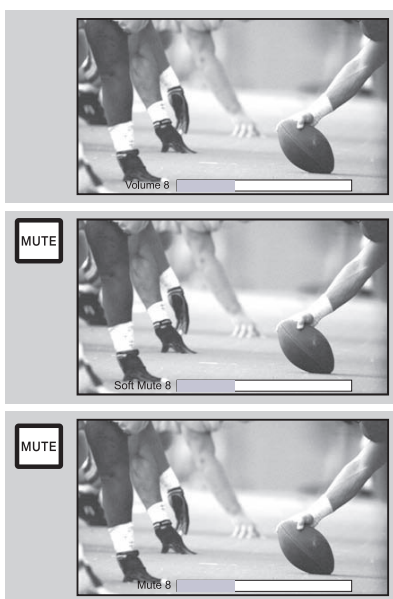
## 5 LAST CHANNEL button

Press this button to toggle between the current and last channel viewed.

## 6 VOLUME (VOL), MUTE button

Press the VOLUME button (+ or -) until you obtain the desired sound level.

To reduce the sound to one half of normal volume (SOFT MUTE) to answer the telephone, etc., press the MUTE button. Press the MUTE button again to turn the sound off completely (MUTE). To restore the sound, press the MUTE button one more time, or VOL UP (+).



Closed Captioning will display automatically when MUTE/SOFT MUTE is on and Closed Caption is set to AUTO (see page 44).

When the TV power is turned off at a volume level 31 or greater, the volume level will default to 30 when the TV is turned on. However, if it is set to a level 30 or less, the volume level will be at the level it was set when the TV is turned off.

## 7 MENU button

The MENU button will start the On-Screen Display.

## 8 GUIDE button

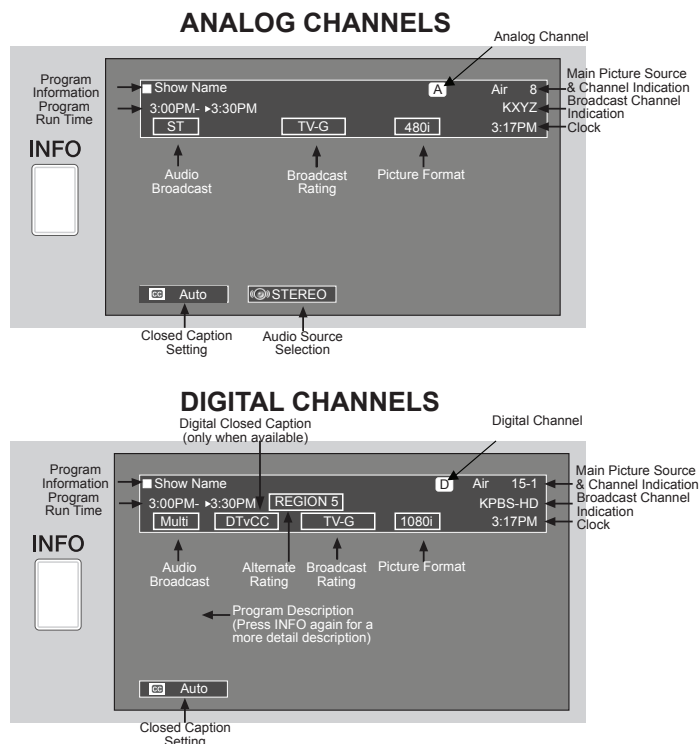
Press this button to access the TV Guide On Screen™ interactive display (see page 37). Press this button to access the Channel Guide of your Satellite receiver, Set Top Box or Cable Box while in SAT/CBL mode.

## 9 EXIT button

This button will exit all On-Screen Displays.

## 10 INFO button

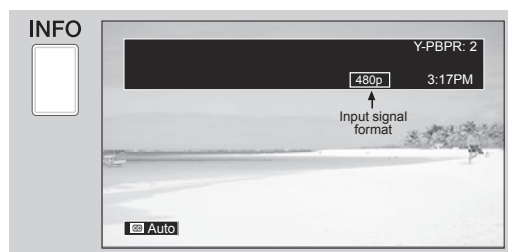
Press this button when you want to check the channel being received, the picture source, if the channel has stereo (ST) or second audio program (SAP), the time, CHANNEL ID and if the TIMER is set.



When an S-VIDEO Input is connected to INPUT 3



When a Component Video: Y-PbPr Input is connected to INPUT 2



## NOTES

- Press the INFO button again or the EXIT button to return to normal viewing.
- The Aspect setting will not be shown if the channel is locked.
- Program Information and Program Run Time information can be displayed by Guide Listing data even if receiving analog channels.

## 11 CURSOR buttons/SELECT button

All the On-Screen Display features can be set or adjusted by using the CURSOR buttons and the SELECT button, except for numeric entries. Press the CURSOR buttons toward desired direction and press the SELECT button to select.

# How to Use the Remote to Control your TV

## 12 ASPECT button

Press this button to quickly change the picture format ASPECT ratio. Depending on the input signal format received, the picture format ratio allows you to adjust the images through the following options. For Automatic aspect ratio adjustment depending on the input signal to fill the screen please refer to Auto Aspect function on page 34.

### 4:3 STANDARD

Use this aspect mode to display conventional (4:3) images. Side panels (gray areas) are placed to the left and right of the image to preserve the original aspect ratio of the source. Note: Use this mode for only 15% of your total viewing time to prevent uneven aging of the phosphors. Phosphors in the lighted area of the picture will age more rapidly than the gray areas.

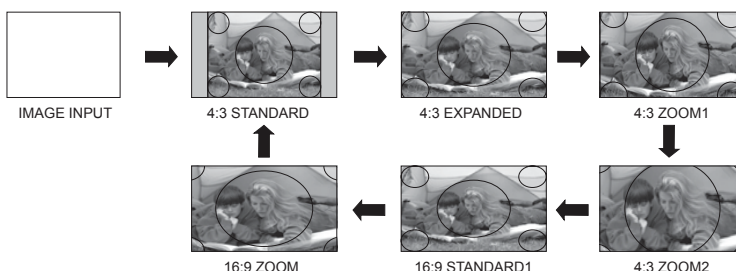
### 4:3 EXPANDED

Use this aspect mode to display conventional (4:3) sources by linearly increasing image expansion from the center towards the edges of the display area in order to fill it.

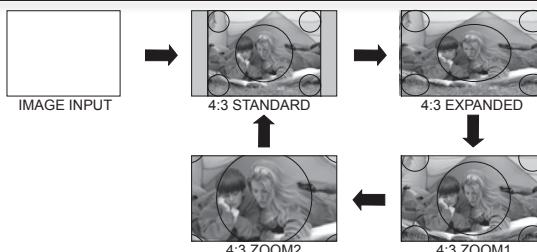
### 4:3 ZOOM1/ZOOM2

Use these aspect modes to zoom in on conventional (4:3) sources.

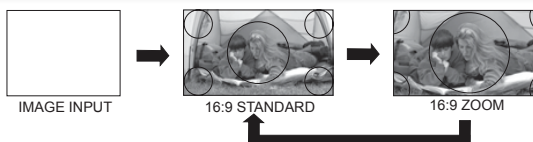
- Antenna-Analog Channel
- S-Video/Video Input (Auto Aspect: Off)
- HDMI-480i/480p Input (Auto Aspect: Off)
- Component-480i/480p Input (Auto Aspect: Off)



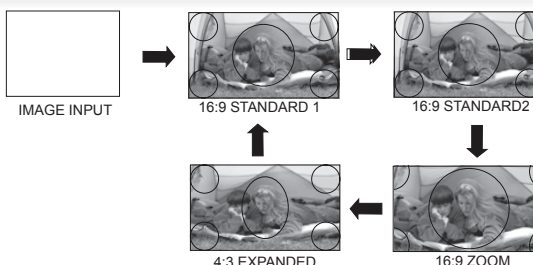
- Antenna-Digital Channel (4:3)
- S-Video/Video 4:3/Letter Input (Auto Aspect: On)
- HDMI-480i/480p 4:3/Letter Input (Auto Aspect: On)
- Component-480i/480p 4:3/Letter Input (Auto Aspect: On)



- S-Video/Video 16:9 Input (Auto Aspect: On)
- HDMI-480i/480p 16:9 Input (Auto Aspect: On)
- Component-480i/480p 16:9 Input (Auto Aspect: On)



- Antenna-Digital Channel (16:9)
- HDMI-720p/1080i/1080p Input
- Component-720p/1080i Input



## NOTES

- Each input has a memory for the Aspect setting. Changing the aspect on one input will not affect the aspect settings on other inputs.
- Vertical position adjustments are directly available when you choose 4:3 EXPANDED/ZOOM1/ZOOM2 or 16:9 ZOOM aspect style (see also page 34).
- When displaying 16:9 STANDARD 2 it may appear lines at the edge of the picture this is normal operation of the TV.
- See Appendix A on page 63 for Aspect availability according to signal format in use.



# How to Use the Remote to Control your TV

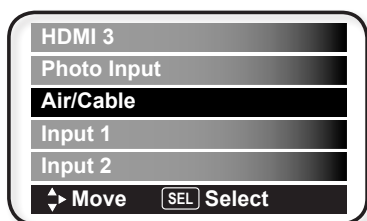
## 13 DAY/NIGHT button

Press this button to toggle between Dynamic, Day and Night picture mode settings. Select DYNAMIC for day time viewing with more brightness and contrast to compete with room light. Select DAY for automatic brightness and contrast adjustment. Select NIGHT for night time viewing with less brightness and contrast for a more detailed picture (see page 33 for settings changes).

**NOTE** For automatic DAY/NIGHT picture mode settings, see page 42.

## 14 INPUT button

When the remote control is in TV mode, press this button to access the INPUTS menu. Use the CURSOR and SELECT buttons to scroll and select the inputs that are being used. Pressing the INPUT button repeatedly will also cycle through the Inputs menu items. Then press the SELECT button or the CURSOR ► to select.



<b>AIR/CABLE</b>	Select between Air or Cable signal.
<b>INPUT 1</b>	Select to choose Input 1.
<b>INPUT 2</b>	Select to choose Input 2.
<b>INPUT 3</b>	Select to choose Side Input.
<b>HDMI 1</b>	Select to choose HDMI 1 Input.
<b>HDMI 2</b>	Select to choose HDMI 2 Input.
<b>HDMI 3</b>	Select to choose Side HDMI Input.
<b>PHOTO INPUT</b>	Select to access your pictures from a SD Flash memory card connected to the Photo Input card slot in the side panel of the Plasma TV. (For more details about Photo Input refer to next page).

## 15 E.SAVE (ENERGY SAVE) button

Use this button to choose power consumption reduction settings based on 3 levels (MIN, MEDIUM, MAX).

## 16 PICTURE-IN-PICTURE (PIP) button

See separate section on page 23 for a more detail description.

## 17 RECORD button

Press to record programs when the remote is in PVR/VCR mode.

**NOTE** For the Record button there is a feature for safety; so this key has to be pressed twice in order to start recording.

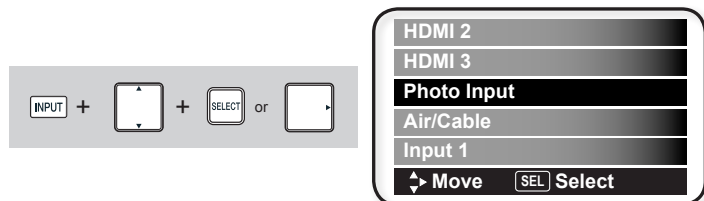
## 18 PAUSE button

Press the PAUSE button to freeze the picture. Press the EXIT button to return the picture to motion. Press the PAUSE button repeatedly to cycle through the 3 different freeze modes : MAIN FREEZE, SPLIT FREEZE, STROBE FREEZE (see page 24).

# Photo Input

This feature is useful for viewing digital still pictures from the MMC/SD memory cards using the Photo Input slot in the side panel of your Hitachi Plasma Television.

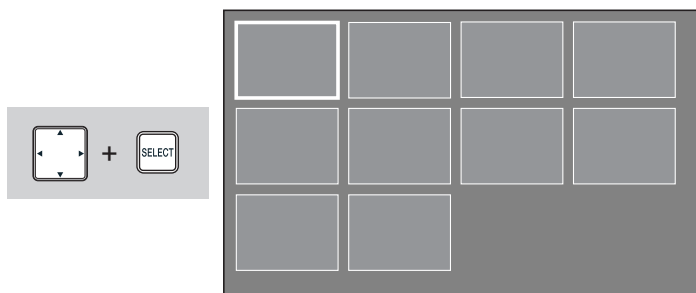
1. Press the INPUT button to cycle through the INPUTS selections until the PHOTO INPUT is selected. Press the SELECT button or CURSOR PAD ►.



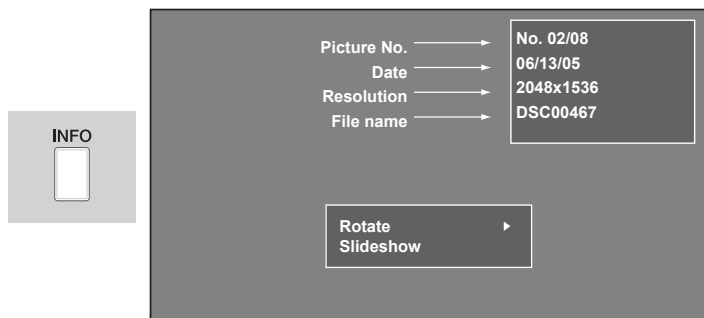
2. Press the CURSOR PAD ◀ or ▶ to access the next or previous photo.



3. Press the SELECT button to view THUMBNAIL.
4. Use the CURSOR PAD buttons ▲, ▼, ◀ or ▶ and the SELECT button to navigate and select individual chosen photos.
5. Press the picture number to jump from picture to picture.

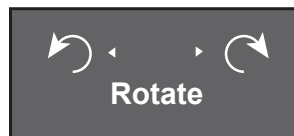


6. Press the INFO button to access PHOTO input menu and to view PHOTO information.
7. Press the CURSOR PAD ▲ or ▼ and the SELECT button to navigate and select the PHOTO Input menu.



## ROTATE

Select this menu item to rotate selected photos either clockwise (CURSOR PAD ►) and counterclockwise (CURSOR PAD ◀).



## SLIDESHOW

Select this menu item to start a slideshow of the digital photos. While the Interval sub menu is highlighted, press the SELECT button to cycle through the interval time from 5, 10 and 30 seconds. Press the SELECT button to stop on a chosen picture of the slideshow. After 30 seconds, the slideshow will resume or press the SELECT button again to continue with the slideshow.



## NOTES

- Photo file names modified on a computer should be 8 characters (Ex. ABCD1234.jpg). 1st character: letters; 2nd to 4th: letters or numbers; 5th to 8th: numbers. Photo files should be first placed on a sub directory name with 8 characters (Ex. 123ABCDE). 1st to 3rd: number; 4th to 8th: letters. The sub directory then should be placed on a main directory with a "dcim" file name format.
- Supported image types are up to 3072 x 2304; JPEG format should conform with DCF Standard (Design rule for Camera File System).
- This TV set displays only digital pictures from digital cameras which meet DCF Standard. Pictures that were copied, edited or modified on a computer may not be displayed on the TV set.

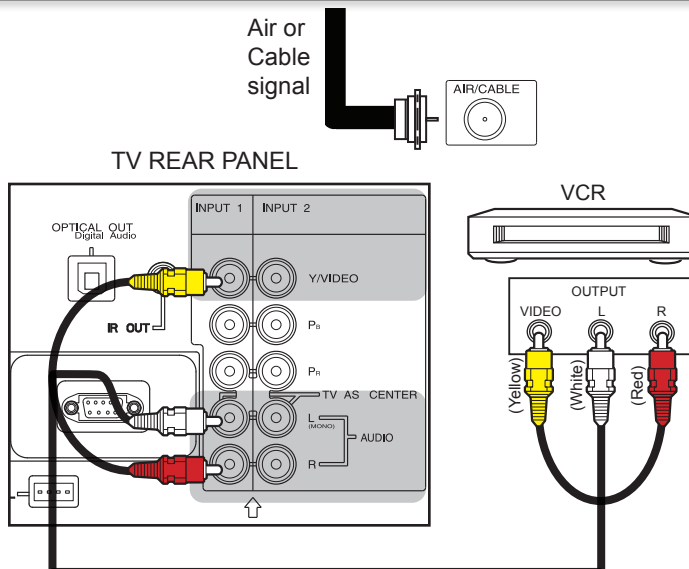
## NOTES

- The maximum number of digital Photos that can be displayed is 999.
- Press INFO button to show Picture Numbers in Thumbnail view, plus other information in individual photos.
- The screen may show "Input device not detected" if the MMC/SD memory card is not inserted.

# Picture-In Picture (PIP)

Your HITACHI Plasma TV incorporates one Tuner technology designed for improved viewing enjoyment. This feature allows you to view Digital Channels and Video inputs on both the main picture and sub picture simultaneously with separate control. Analog channels cannot be viewed in PIP mode. Please see Appendix B (page 64) for PIP availability.

To select between main picture and PIP sub picture, use the CURSOR PAD buttons in the remote control. The Orange highlighted channel display will move with every press of the CURSOR PAD buttons. The Picture-in-Picture feature is convenient when you want to watch more than one program at the same time. You can watch a TV program while viewing other programs from any of the video inputs. Use the connection at right to view VCR program as a sub picture while viewing another program as main picture (CABLE/AIR Digital channel).



## ① PIP button

Press the PIP button and a sub-picture will appear in one of three different modes (POP, PIP, or SPLIT), depending on the INPUT signal. To change the PIP mode, use the PIP button to cycle through the three different modes.

## • SPLIT MODE PICTURE-IN-PICTURE

Split Mode PIP displays the main picture and subpicture evenly on the screen.

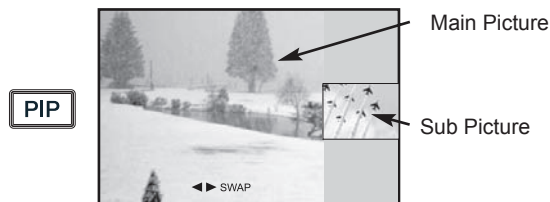


Main Picture

Sub Picture

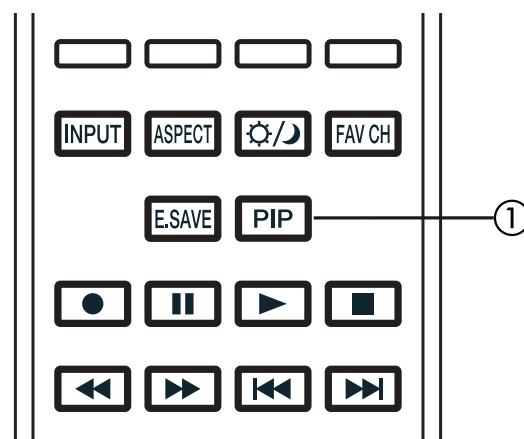
## • POP MODE PICTURE-IN-PICTURE

POP Mode PIP displays the sub-picture outside of the main picture. Use the CURSOR PAD (▲ or ▼) to move the sub-picture. This feature is not available with a 1080p/1080i/720p signal. Please refer to the PICTURE-IN-PICTURE modes table in Appendix B.



Main Picture

Sub Picture



## • PIP MODE PICTURE-IN-PICTURE

Select CABLE/AIR, INPUT 1~3 or HDMI 1, 2, 3 from the INPUTS menu. Select a channel that has a 1080p/1080i/720p signal. To prevent a pattern burn, occasionally move the sub-picture using the CURSOR PAD buttons ▲ or ▼.



Main Picture

Sub Picture

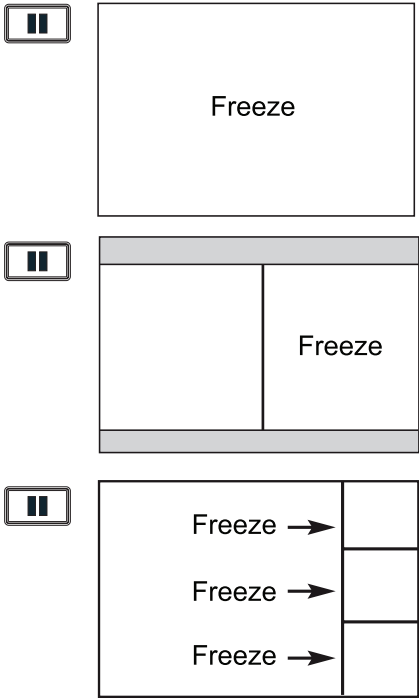
## NOTE

Press the CURSOR PAD (◀ or ▶) to enable the sub-picture sound.

# Picture-In Picture (PIP)

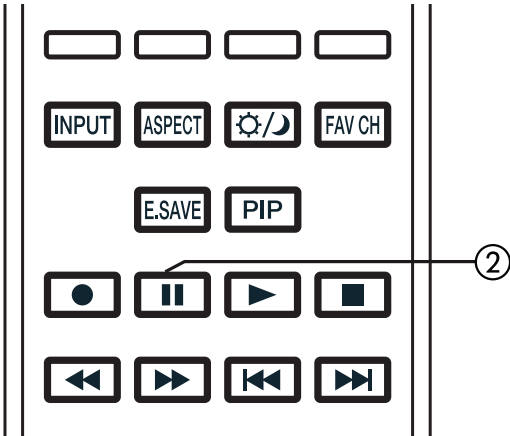
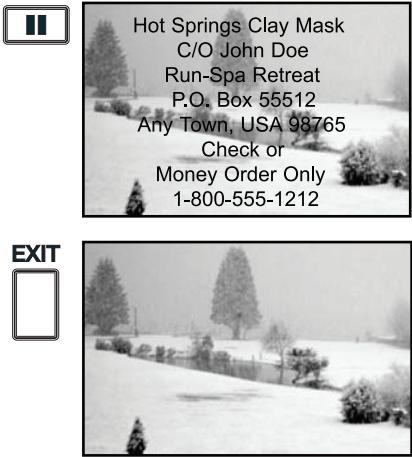
② **PAUSE button**

Press the PAUSE button repeatedly to toggle between FREEZE modes (Main Freeze, SPLIT and STROBE). This is convenient when trying to write down the address for a mail order company, recording statistics for a sporting event, etc. To return the picture to motion, press the EXIT button.



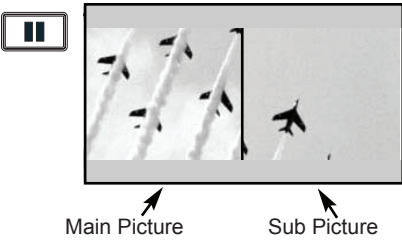
• **MAIN FREEZE**

Press the PAUSE button to freeze one frame of the picture you are currently viewing and the frozen frame will show in the Main Picture. Press the EXIT button to return to normal viewing. This feature is useful for freezing a picture frame with addresses.



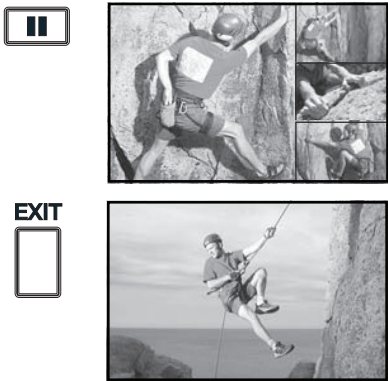
• **SPLIT FREEZE**

Press the PAUSE button to freeze the picture you are currently viewing (only the right sub-picture will freeze). Press the EXIT button to return to normal viewing.



• **STROBE FREEZE**

Press the PAUSE button to freeze three frames of the picture you are currently viewing (only the 3 sub-pictures will freeze). Press the EXIT button to return to normal viewing. This feature is useful for viewing a moving picture that has many details, for example, a close play in a sporting event or a golf swing.



- NOTES**
- The default FREEZE mode is the MAIN freeze followed by the SPLIT freeze and then the STROBE freeze. The last FREEZE mode you selected before you pressed the EXIT button will be the one that comes up after pressing the PAUSE button again.
  - Each freeze frame in Strobe Freeze is delayed about 0.1 (1/10) second.

# How to Use the Remote to Control your AV Equipment

## OPERATING THE PRECODED FUNCTIONS FOR YOUR AV EQUIPMENT.

The new remote control is designed to operate different types of VCRs, cable boxes, set-top-boxes, satellite receivers, DVD players, and other audio/video equipment. You must first program the remote to match the remote system of your AV equipment (refer to pages 29~30 for a preprogrammed code number).

### AV COMPONENT CONTROL SETUP PROCEDURE

1. Turn on your AV Component.
2. Select the desired mode: DVD, PVR/VCR, SAT/CBL or AVR by pressing the corresponding button.
3. Hold down the device button (DVD, PVR/VCR, SAT/CBL or AVR) on the remote and enter the four digit preset code that matches your device as shown on pages 29~30.
4. Release the device button.
5. If done correctly, the device LED indicator will blink 3 times to confirm proper setup.
6. The remote will now control the desired device.

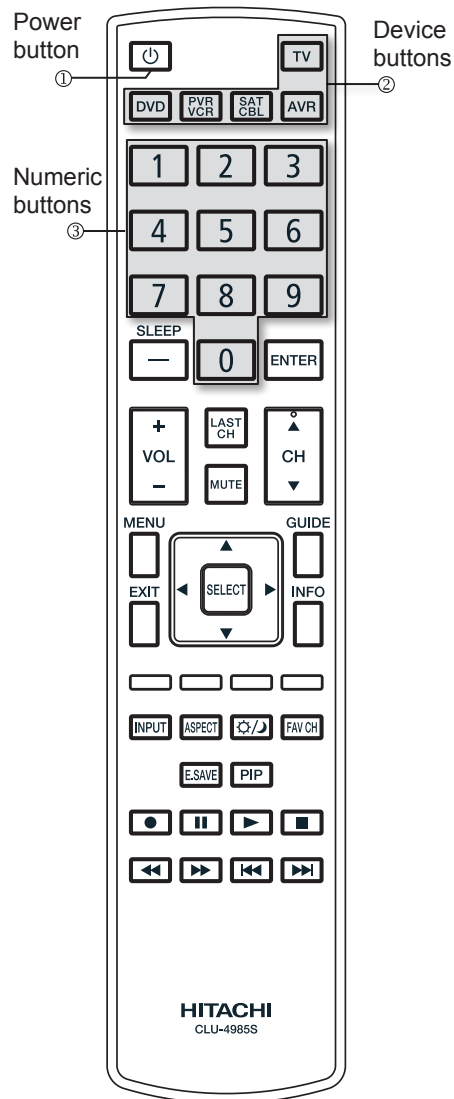
### SETUP EXAMPLE (Hitachi Cable Box with precode 0003)

1. Turn ON your Cable box.
2. Select Cable mode by using your SAT/CBL button to position the LED indicator on SAT/CBL.
3. Hold down the SAT/CBL button on the remote and press the numbers 0, 0, 0 and 3.
4. Release the SAT/CBL button.
5. The indicator light will flash 3 times if the code was accepted.
6. Aim the remote at the cable box and press the POWER button. The remote will turn off your cable box when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your cable box. If the cable box does not turn off, try a different four digit preset code.
7. The remote will now control your Cable box.

Repeat the same procedure for your set-top-box or satellite receiver (select SAT/CBL), your DVD (select DVD), your VCR/PVR(select VCR/PVR), or your AVR (select AVR).

#### NOTES

- If your AV component cannot be operated after performing the above procedures, your AV component code has not been preprogrammed into the remote.
- In the unlikely event that your AV component cannot be operated after performing the above procedures, please consult your AV component operating guide.
- The remote control will remember the codes you have programmed even after the batteries are removed from the remote control. To reset all programmed codes to factory default place remote control in TV mode, then press and hold TV mode key and enter "9", "8", "1" in sequence.



#### Remote Control Backlight Feature

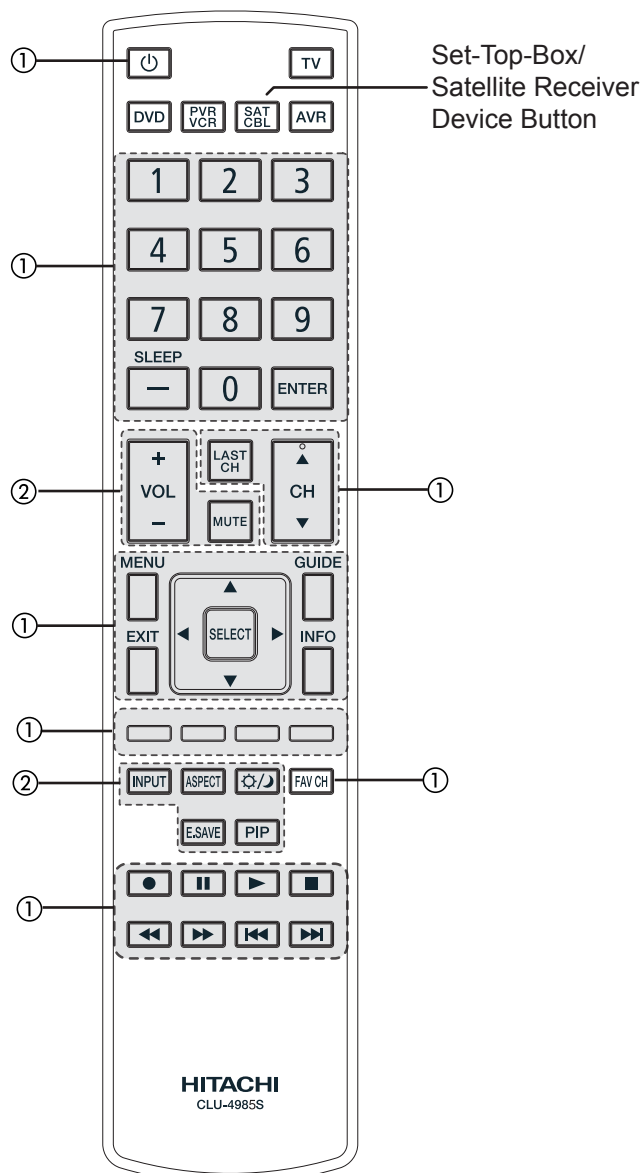
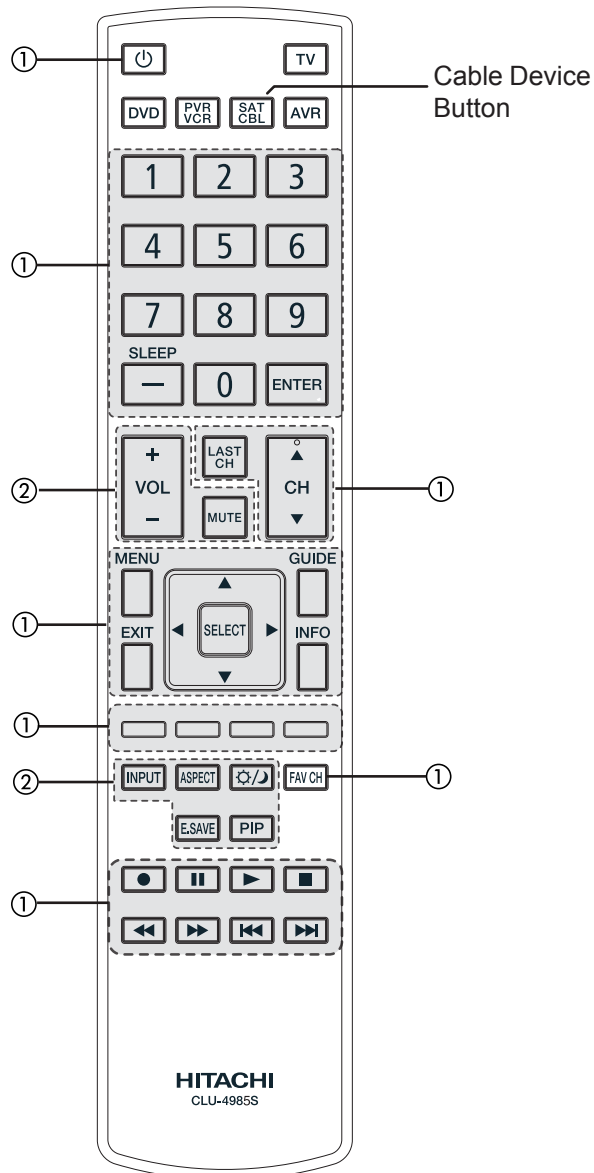
When you press any remote control button, the buttons will light up. The illumination will light a few seconds during this time. The buttons will appear to light if the room is dark.

#### Disabling Remote Control Backlight Feature

1. Place the RC in TV mode.
2. Press and HOLD the TV mode key.
3. While holding the TV mode key enter ASPECT, MUTE in sequence.
4. To re-enable the backlight feature do steps 1~3 again (these steps toggle the Backlight Feature ON and OFF, default is ON).



# How to Use the Remote to Control your AV Equipment



**MY CABLE BOX CODE IS:** \_\_\_\_\_

## NOTE

Refer to instruction manual of the Cable Box for operation of the buttons exclusively for the Cable Box.

### ① PRECODED CABLE BOX buttons

These buttons transmit the chosen pre-coded cable codes :

- Power
- Cursor & Select
- Number PAD
- Menu
- Info
- Enter
- Exit
- Channel Up & Down
- Dash (-)
- Guide
- Last CH
- Fav CH
- Play, Stop, Pause, RWD, FWD, Skip FWD, Skip RWD, Record.
- Color Buttons

### ② EXCLUSIVE TV buttons

These buttons are for operating the TV :

- Day/Night
- PIP
- Input
- Aspect
- Vol Up & Down
- Mute
- E. Save

**MY SET-TOP-BOX/SATELLITE RECEIVER CODE IS:** \_\_\_\_\_

## NOTE

Refer to instruction manual of the Set-Top-Box/Satellite Receiver for operation of the buttons exclusively for the Set-Top-Box/Satellite Receiver.

### ① PRECODED SET-TOP BOX/SATELLITE buttons

These buttons transmit the chosen pre-coded Set-Top-Box/Satellite Receiver codes :

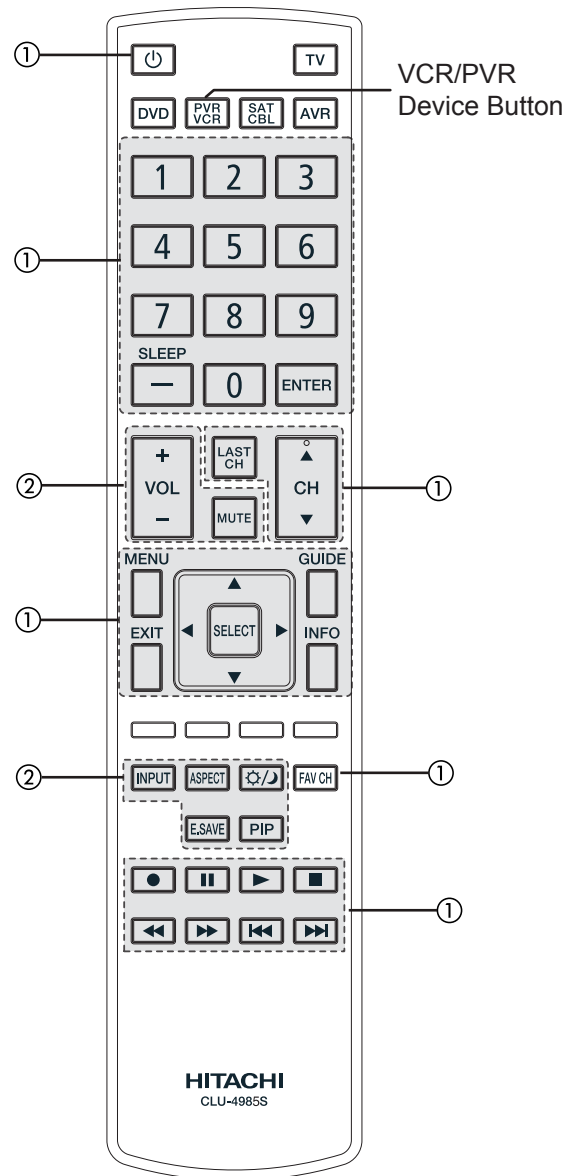
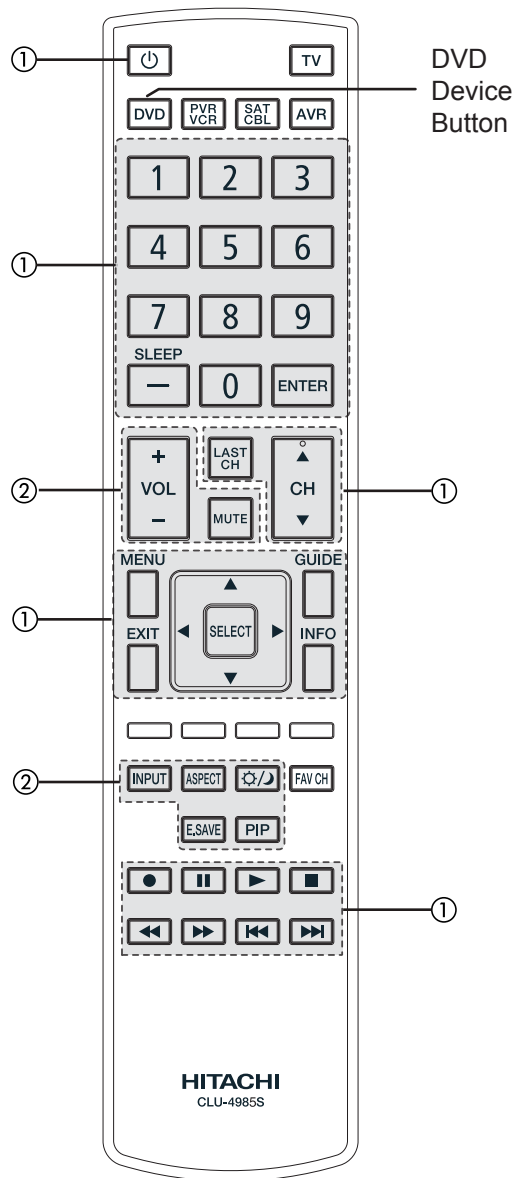
- Power
- Cursor & Select
- Number PAD
- Menu
- Info
- Enter
- Exit
- Channel Up & Down
- Dash (-)
- Guide
- Last CH
- Fav CH
- Play, Stop, Pause, RWD, FWD, Skip FWD, Skip RWD, Record.
- Color Buttons

### ② EXCLUSIVE TV buttons

These buttons are for operating the TV :

- Day/Night
- PIP
- Input
- Aspect
- Vol Up & Down
- Mute
- E. Save

# How to Use the Remote to Control your AV Equipment



**MY DVD PLAYER CODE IS:** \_\_\_\_\_

**NOTE** Refer to instruction manual of the DVD Player for operation of the buttons exclusively for the DVD Player.

① **PRECODED DVD buttons**

These buttons transmit the chosen precoded DVD codes :

- |                  |                    |                     |
|------------------|--------------------|---------------------|
| -Power           | -Number PAD        | -Play, Stop, Pause, |
| -Menu            | -Info              | RWD, FWD, Skip      |
| -Cursor & Select | -Channel Up & Down | FWD, Skip FWD       |
| -Dash            | -Exit              | -Record             |
|                  | -Enter             | Guide               |

② **EXCLUSIVE TV buttons**

These buttons are for operating the TV :

- |            |                |        |
|------------|----------------|--------|
| -Day/Night | -PIP           | -Input |
| -Aspect    | -Vol Up & Down | -Mute  |
| -E. Save   |                |        |

**MY VCR/PVR CODE IS:** \_\_\_\_\_

**NOTE** Refer to instruction manual of the VCR/PVR for operation of the buttons exclusively for the VCR/PVR.

① **PRECODED VCR/PVR buttons**

These buttons transmit the chosen precoded VCR/PVR codes :

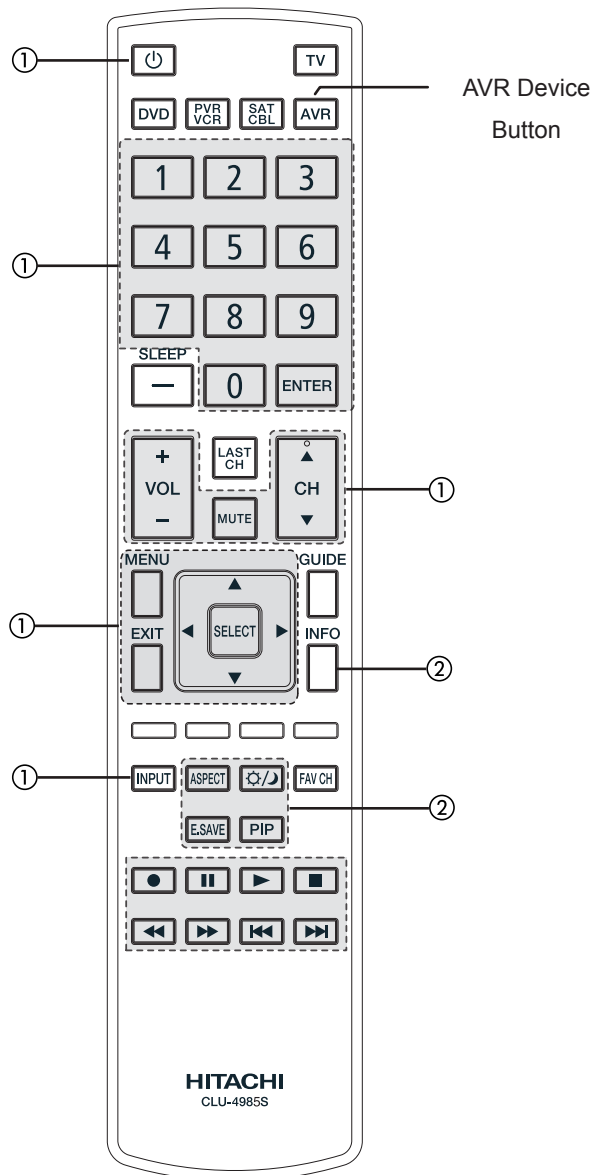
- |                        |                    |               |
|------------------------|--------------------|---------------|
| -Power                 | -Cursor & Select   | -Enter        |
| -Menu                  | -Channel Up & Down | -Dash(-)      |
| -Exit                  | -Number PAD        | -Play, Pause, |
| -Info                  | -Last CH           | Stop, FWD,    |
| -Record                | -RWD, Skip RWD     | Skip FWD      |
| -FAV CH (Only for VCR) |                    |               |

② **EXCLUSIVE TV buttons**

These buttons are for operating the TV :

- |            |                |        |
|------------|----------------|--------|
| -Day/Night | -PIP           | -Input |
| -Aspect    | -Vol Up & Down | -Mute  |
| -E.Save    |                |        |

# How to Use the Remote to Control your AV Equipment



## MY AUDIO/VIDEO RECEIVER (AVR)

**CODE IS:** \_\_\_\_\_

### NOTE

Refer to the instruction manual of the AVR for operation of the buttons exclusively for the AVR.

### ① PRECODED AVR buttons

These buttons transmit the chosen precoded AVR codes :

- Power
- Cursor & Select
- Vol Up & Down
- Menu
- Channel Up & Down
- Mute
- Exit
- Number PAD
- Play, Pause, Stop, RWD, Skip RWD, FWD, Skip FWD, -Enter
- Input
- Record

### ② EXCLUSIVE TV buttons

These buttons are for operating the TV :

- Day/Night
- PIP
- Aspect
- E.Save
- Info

# Remote Control Codes

CABLE Brand	CODES
A-MARK	0008,0144
ABC	0237,0003,0008
ACCUPHASE	0003
ACORN	0237
ACTION	0237
ACTIVE	0237
ADB	2092,2586
ARCHER	0237
BCC	0276
BRITISH TELECOM	0003
CENTURY	0008
DIGEO	1187,2187
DIGI	0637
DIRECTOR	0476
DUMONT	0637
FOSGATE	0276
GE	0144
GENERAL INSTRUMENT	0476,0810,0276
GIBRALTER	0003
GOLDSTAR	0144
HITACHI	0003,0008
INSIGHT	0476,0810
JERROLD	0476,0810,0276
MEMOREX	0000
DAIICHI	0003
MOTOROLA	1376,0476,0810
	0276,1187,1254
	1106
NOVA VISION	0008
NOVAPLEX	0008
NSC	0637
PACE	1877,0877,0237
	0008
PANASONIC	0000,0008,0144
PANTHER	0637
PARAGON	0000,0008,0525
PENNEY	0000,0637
PHILIPS	1305,0317
PIONEER	1877,0877,0144
	0533
PULSAR	0000
QUASAR	0000
REGAL	0276
RUNCO	0000
SAMSUNG	0003,0144
SASKTEL	1737
SCIENTIFIC ATLANTA	1877,0877,0477
	0237,0003,0000
	0008
SONY	1006
SPRUCER	0144
STARCOM	0003
STORM	0637
SUPERCABLE	0276
TORX	0003
TOSHIBA	0000
UNITED CABLE	0276,0003
US ELECTRONICS	0276,0003,0008
VIDEOWAY	0000
ZENITH	0000,0525

CABLE/PVR COMBO	CODES
DIGEO	1187,2187
GENERAL INSTRUMENTS	0810
JERROLD	0810
MOTOROLA	1376,0810,1187
	1106
PACE	1877,0237
PIONEER	1877,0877
SASKTEL	1737
SCIENTIFIC ATLANTA	1877,0877
SONY	1006
SUPERCABLE	0276

SATELLITE BRAND (Set Top Box)	CODES
BELL	0775,1170
EXPRESSVU	
CHAPARRAL	0216
COOLSAT	1806,2147

CROSSDIGITAL	1109
DIRECTV	1377,0392,0566
	0639,1639,1142
	0247,0749,1749
	0819,1856,1076
	1108,0099,1109
	1392,1414,1442
	1443,1609,1640
DISH NETWORK SYSTEM	1505,1005,0775
	1170,1775
DISHPRO	1505,1005,0775
	1775
ECHOSTAR	1505,1005,0775
	1170,1775
EXPRESSVU	0775,1775
FORTEC STAR	1821
FUNAI	1377
GE	0392,0566
GENERAL INSTRUMENTS	0869
GOI	0775,1775
HITACHI	0749,0819,1250
HOUSTON	0775
HTS	0775,1775
HUGHES NETWORK SYSTEMS	1142,0749,1749
	1442,1443
INNOVA	0099
JERROLD	0869
JVC	0775,1170,1775
LG	1414
MAGNAVOX	0722
MCINTOSH	0869
DAIICHI	0749
MOTOROLA	0869,0856
NETSAT	0099
NEXT LEVEL	0869
PANASONIC PANSAT	0247,0701
PHILIPS	1807
	1142,0749,1749
	0775,0819,1076
	0722,0099,1442
PIONEER PRIMESTAR	1142,1442
PROSCAN	0869
RADIOSHACK	0392,0566
RCA	0566,0775,0869
	0392,0566,1142
	0775,0855,0143
	1392,1442
SAMSUNG	1377,1142,1276
	1108,1109,1442
	1609
SKY	0856,0099
SONY	0639,1639,1640
STAR CHOICE	0869
STAR TRAK	0869
THOMSON	0392,0566
TIVO	1142,1442,1443
TOSHIBA	0749,1749,0790
ULTIMATE TV	1392,1640
ULTRASAT	1806
UNIDEN	0722
VOOM	0869
ZENITH	0856,1856,1810

SAT/PVR COMBO	CODES
BELL	0775,1170
EXPRESSVU	
DIRECT TV	1377,0392,0639
	1142,1076,0099
	1392,1442,1443
	1640
DISH NETWORK SYSTEM	1505,0775
DISH PRO	1505,0775,1170
ECHOSTAR	0775
EXPRESSVU	1142,1442,1443
HUGHES NETWORK SYSTEMS	1170
JVC	0869
MOTOROLA	1142,1442
PHILIPS	0392
PROSCAN	1392
RCA	1442
SAMSUNG	0639,1640
SONY	0869
STAR CHOICE	1142,1442,1443
TIVO	1810
ZENITH	

VCR Brand	CODES
A-MARK	0037,0240,0000
	0278,0046
ABS	1972
ACCURIAN	0000
ADMIRAL	0060,0048,0039
	0047,0104,0209
	0065,0479

ADVENTURA	0037,0240,0000
ADYSON	0072
AIKO	0278
AIWA	0037,0000,0124
AKAI	0041,0175
ALBA	0209,0072,0278
ALIENWARE	1972
ALLEGRO	0039
AMERICA ACTION	0278
AMERICAN HIGH	0035,0081
AMSTRAD	0000
ASHA	0240
ASTRA	0035,0081
AUDIOVOX	0000
AVIS	0000,0072
BEAUMARK	0240
BELL & HOWELL	0035,0048,0039
	0000,0104,0046
	0479
BROKSONIC	0184,0121,0209
	0002,0479
CALIX	0037
CANDLE	0037,0038
CANON	0035
CAPEHART	0002
CARRERA	0240
CARVER	0035,0081
CCE	0072,0278
CINERAL	0278
CITIZEN	0035,0037,0240
	0000,0209,0278
	0479
CLASSIC	0037
COLORTYME	0060,0035,0045
	0278
COLT	0000,0072
CRAIG	0037,0047,0240
	0072
CRITERION	0000,0072
CROSLEY	0035,0081,0000
CROWN	0072,0278
CURTIS MATHES	0060,0035,0162
	0240,0000,0041
	0278,0432
CYBERNEX	0240
CYBERPOWER	1972
DAEWOO	0037,0045,0278
	0046
DAYTRON	0037,0278
DELL	1972
DENON	0081,0042
DERWENT	0041
DIRECTV	0739
DUAL	0000
DURABRAND	0039,0038
DYNATECH	0240,0000
ELECTROHOME	0060,0037,0240
	0000,0043,0209
ELECTROPHONIC	0037
EMERALD	0184,0121
EMEREX	0032
EMERSON	0037,0184,0240
	0000,0121,0043
	0209,0002,0278
	0479,1593
FISHER	0039,0047,0000
	0104,0046
FUJI	0035,0033
FUJITSU	0000
FUNAI	0037,0000,0072
	0278,1593
GARRARD	0000
GATEWAY	1972
GE	0060,0035,0048
	0240,0000,0065
GEMINI	0060
GENEXXA	0037,0000,0278
GO VIDEO	0240,0432,0526
	0614
GOLDSTAR	0035,0037,0039
	0000,0278,0038
GOODMANS	0037,0081,0000
	0072,0278
	0000
GRADIENTE	0081,0042
GRUNDIG	0081
HARLEY DAVISON	0000
HARMAN/ KARDON	0081,0038
HARVARD	0072
HARWOOD	0072
HEADQUARTER	0046
HEWLETT	1972
PACKARD	
HI-Q	0035,0047,0000
HITACHI	0035,0037,0045
	0000,0042,0041
	0065,0105
HOWARD	1972
COMPUTERS	
HP	1972
HUGHES	0042,0739
NETWORK SYSTEMS	
HUMAX	0739,1797,1988
HUSH	1972
HYTEK	0047,0000,0072
IBUYPOWER	1972

INSTANT	0035
REPLAY	
ITT NOKIA	0240,0041
JANEIL	0240
JENSEN	0067,0041
JVC	0067,0041,1162
KEC	0037,0278
KENWOOD	0067,0041,0038
	0046
KLH	0072
KODAK	0035,0037
KTV	0000
LG	0037,0240,0038
	1037
LINKSYS	1972
LLOYD'S	0240,0000,0072
	0038
LOEWE	0081
LOGIK	0240,0000,0072
LUMATRON	0278
LUXOR	0046
LXI	0037,0000,0042
	0067
M ELECTRONIC	0240
MAGNASONIC	0037,0240,0000
	0072,0278
MAGNAVOX	0035,0037,0048
	0039,0081,0240
	0000,0563,0618
	1593
MAGNIN	0240
MARANTZ	0035,0081,0038
MARTA	0037
MATSUI	0037,0209
MATSUSHITA	0035,0162,0081
	1162
MEDIA CENTER	1972
PC	
MEI	0035
MEMOREX	0035,0162,0037
	0048,0039,0047
	0240,0000,0104
	0209,0072,0278
	0046,0479,1037
	1162
METZ	0037
MGA	0060,0240,0043
MGN	0240
TECHNOLOGY	
MICROSOFT	1972
MIDLAND	0240
MIND	1972
MINOLTA	0042,0105
MINUBISHI	0060,0048,0047
	0000,0042,0067
	0043,0041
	0035,0048
MOTOROLA	
MOVIE WALKER	0072
MTC	0240,0000,0072
MTX	0000
MULTITECH	0039,0000,0072
NAD	0240,0104
NEC	0104,0067,0041
	0038
NEW TECH	0072
NIKKO	0037,0278
NIKKODO	0037,0278
NISHI	0240
NIVEUS MEDIA	1972
NOBLEX	0240
NORTHGATE	1972
OLYMPUS	0035,0162,0104
ONKYO	0222
OPTIMUS	1062,0035,0162
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	0432,1048,1162
ORION	0184,0240,0000
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	0035
PANAMA	1062,0035,0162
PANASONIC	0000,0225,0614
	0616,1162
PENNEY	0035,0162,0037
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	0000,0042,0067
	0038
PENTAX	0042,0065,0105
PHILCO	0035,0081,0000
	0209,0479
PHILIPS	0035,0162,0048
	0081,0045,0000
	0209,0616,0618
	0739,1081,1181
PILOT	0037
PIONEER	0162,0081,0042
	0067,1337
	0081
POLK AUDIO	0278
PORTLAND	1593
PRESIDIAN	0240
PROFITRONIC	0060
PROSCAN	0000,0072
PROTEC	0072
PROTECH	0039,0240,0278
PULSAR	0240
PULSER	0046
QUARTER	

QUARTZ	0035,0047,0046
QUASAR	0035,0162,0002
	1162
RADIOSHACK	0035,0162,0037
	0048,0047,0240
	0000,0104,0046
	1037,1162
	0037
RADIX	0037
RANDEX	0060,0035,0048
RCA	0240,0045,0000
	0042,0065,0105
	0880
REALISTIC	0035,0162,0037
	0048,0047,0240
	0000,0104,0121
	0278,0046,0065
	1162
REPLAY TV	0614,0616
RICAVISION	1972
RUNCO	0039
SAMSUNG	0060,0240,0045
	0000,0038,0432
	0739
SAMTRON	0240
SANKY	0048,0039
SANSUI	0240,0000,0067
	0209,0041,0072
	0002,0479
SANYO	0047,0240,0000
	0104,0046,0159
	0479
SCOTT	0184,0045,0121
	0043
SEARS	0060,0035,0162
	0037,0048,0039
	0047,0033,0045
	0000,0042,0104
	0067,0043,0209
	0041,0072,0046
	0665,0105
SHARP	0048,0047,0032
	0000,0065,0848
SHINTOM	0039,0240,0000
	0072
SHOGUN	0240
SIEMENS	0037,0104
SIGNATURE	0060,0035,0037
	0048,0000,0046
	0065,0479
SINGER	0037,0240,0072
SONIC BLUE	0614,0616
SONOGRAPHIE	0046
SONY	0035,0047,0032
	0033,0000,0067
	0046,0636,1032
	1972
SOUNDMASTER	0000
STACK 9	1972
STS	0042,0105
SV2000	0000,0072
SWA	0000
SYLVANIA	0035,0081,0000
	0043,1593
SYMPHONIC	0240,0000,0002
	1593
SYSTEMAX	1972
TAGAR SYSTEMS	1972
TANDY	0000,0104
TASHIKO	0037
TATUNG	0048,0081,0000
	0067,0041
TEAC	0000,0067,0041
TECHNICS	0035,0162,0037
	0000
TEKNIKA	0035,0037,000

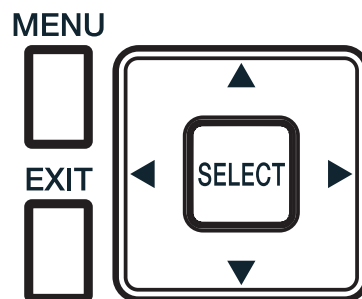
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# On-Screen Display

1. Press MENU on the remote control to display the different features on your Hitachi Plasma TV.
2. Use the CURSOR PAD (buttons, ▲, ▼, ◀ and ▶) and highlight a different feature of the On-Screen Display menu. Press the SELECT button to select.
3. Press EXIT on the remote control to quickly exit from a menu.

This part of the screen shows which selections are available.



This part of the screen shows which Remote Control buttons to use.

## NOTE

The On Screen Display (OSD) for the different submenus shown in next pages are for illustration purposes only, therefore; doesn't reflect the actual appearance of the OSD of your Hitachi Plasma TV.

## Video

### Picture Mode

Select between 3 pictures modes; Dynamic, Day and Night.

### Contrast

Adjust picture contrast.

### Brightness

Adjust picture brightness.

### Color

Adjust color.

### Tint

Adjust tint.

### Sharpness

Adjust sharpness.

### ColorTemperature

Set this to High for less intense color with more blue, set to Medium for natural color, set to Standard for standard colors or D.Cinema for more cinema accurate colors.

### Light Sensor

Adjust screen contrast setting automatically accordingly to the brightness of the room.

### Black Enhancement

Enhances shadow detail in dark scenes.

### Contrast Mode

Use this function to choose between two Contrast Mode settings: Normal and Dynamic.

### Noise Reduction

Reduces conspicuous noise in the picture.

### Cross Color NR

Reduces cross color noise in the picture.

### MPEG NR

Reduces mosquito noise in the picture.

### Auto Movie Mode

Select the Original 3:2 Pulldown detection or Smooth Motion feature.

### Color Space

Choose VIBRANT to select highly saturated colors, or AUTO STD/xvColor™ for more natural colors.

### Cinema48™

Faithfully reproduces the movie theater effect of 24 frames per second with a 48 fps presentation.

### Lip Sync

Synchronizes audio with video signal on digital and analog sources.

### Black Side Panel

Set the gray side bars On/Off when watching 4:3 signals in standard mode.

### Aspect

Choose the picture format aspect ratio.

### Reset Video Settings

Choose to Reset Video Settings to factory settings and to see the Smooth Motion Feature Demo.

# On-Screen Display

## Audio

Treble	Adjust the intensity of high frequencies.
Bass	Adjust the intensity of low frequencies.
Balance	Adjust the balance.
Surround	Select Surround settings (Off, Normal, Wide)
Bass Boost	Select Bass Boost option ON or OFF.
Audio Source	Select between three Audio Sources (ST, Mono, SAP).
Internal Speakers	Select internal or external speakers.
Auto Noise Cancel	Eliminates the noise between stations.
Perfect Volume	Adjust volume to be closer in level between channels.
Loudness	Adjust Loudness.
Language	Select Language options if available.
Digital Output	Select Optical Output options.
DRC	Select Dynamic Range Compression to ON or OFF.

### NOTE

The Language, Digital Output, and the Dynamic Range Compression feature of the Audio OSD are only available for Digital channels.

## TV Guide On Screen

TV Guide On Screen	Set, Control and navigate the system
--------------------	--------------------------------------

## Channel Manager

Signal Meter	Access Signal Meter.
Auto Channel Scan	Set Auto Channel Scan.
Channel List	Set Channel List.

### NOTE

The Signal Meter feature of the Channel Manager OSD is only available for Digital channels.

## Locks

Change Access Code	Change Lock access code.
Engage Lock	Choose to lock channel, and/or panel control keys.
Movie Ratings	Block various types of movies and video types based on motion picture ratings.
TV Ratings	Block various types of movies and television programming based on a parental guide ratings.
Canadian Ratings (ENG)	Block various types of movies and television programming based on the Canadian ratings system.
Canadian Ratings(FRN)	Block various types of movies and television programming based on the Canadian French ratings system.
Region 5	Ratings system for DTV Signal to block various types of programs.

## Timers

Set The Clock	Set Clock Settings.
Set Sleep Timer	Set Sleep Timer intervals (30 min. intervals, 00:30-3:00).
Set Day/Night Timer	Set Day/Night picture mode to start at preset times.

### NOTE

The clock settings will be "unavailable:" (grayed out) when TV Guide On Screen™ is set up.

## Setup

Set The Menu Options	Choose English, French or Spanish OSD Language and OSD Contrast.
Set The Screen Saver	Select Screen Saver options to prevent uneven screen aging.
Set The Energy Options	Select Power Consumption Savings options.
Set The Inputs	Label Video Inputs, VCR, DVD, etc and select Game Mode.
Set The Closed Captions	Feature to display dialogue/text and change its appearance.
Set The IR Out	Select between two IR Output modes for controlling external AV equipment.
Set The Power Indicator	Adjust the brightness intensity of the LED indicating light.
Set HDMI-CEC Options	Set to ON, this feature will enable simplified operation of compatible components.
Reset The Software	Select to upgrade TV software and to switch between HOME and RETAIL mode Energy Savings Settings.

## Power Swivel

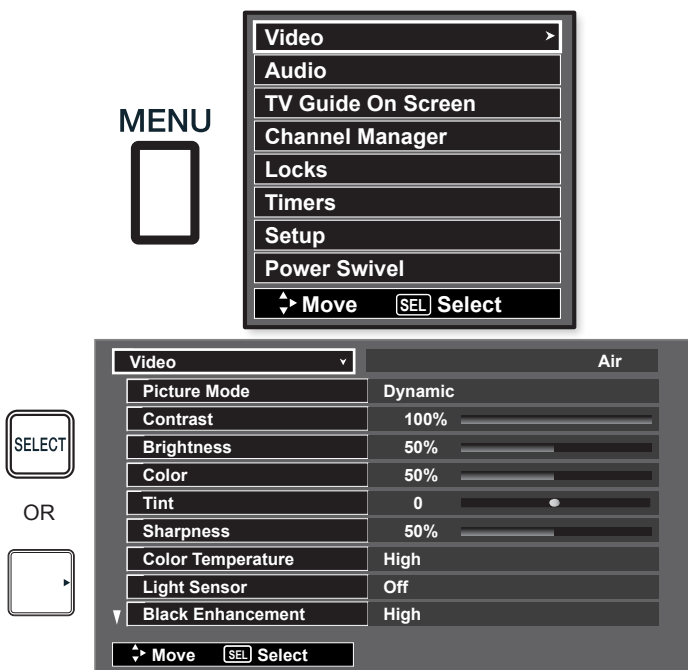
Unlocked	Power Swivel enabled. You can control the motorized Table Top Stand.
Locked	Power Swivel disabled.

### NOTE

Power Swivel feature is only available when the Table Top Stand is connected.

# Video

Select VIDEO to adjust picture settings to your preference. You can independently customize each of the video inputs to increase viewing performance and pleasure depending upon the video program being viewed. If RESET is selected, only the selected input will reset to initial conditions.



## Picture Mode

Use this function to choose from automatic picture settings to optimize your TV's performance.

1. Use the CURSOR buttons ◀ or ▶ to highlight and select PICTURE MODE settings (Dynamic, Day or Night).
2. Then press the SELECT button to set the mode and return to the Video menu or press EXIT to quit menu.
3. There are 3 Picture Modes available : Dynamic, Day and Night mode. Dynamic is the factory preset mode for RETAIL Energy Saving Mode and Day is the factory preset when HOME Energy Saving Mode is used (refer to page 45). This can be changed by adjusting any video setting to your desire conditions. Day can be used as a second video setting for daytime viewing. Night is set to optimize programming during nighttime.

## Other Video Menu Settings Adjustment

Use the CURSOR PAD ▲ or ▼ to highlight the function to be adjusted.

1. Press the SELECT button or the CURSOR PAD ▶ to select the function settings.
2. Press the CURSOR PAD ◀ or ▶ to adjust the function.
3. Press MENU to return to main menu.
4. Press EXIT to quit menu.

## Contrast

Use this function to change the contrast between black and white levels in the picture.

## Brightness

Use this function to change the overall brightness in the picture.

## Color

Use this function to adjust the level of color in the picture.

## Tint

Use this function to adjust flesh tones so they appear natural.

## Sharpness

Use this function to adjust the amount of fine detail in the picture.

## Color Temperature

Set this to High for cooler color with more blue, set to Medium for more natural color, set to Standard for accurate color or set to D. Cinema for color to match the cinema accurately.

## Light Sensor

When on, the light sensor will automatically adjust the contrast setting according to brightness of the room. Select off to manually adjust the contrast setting.

### NOTE

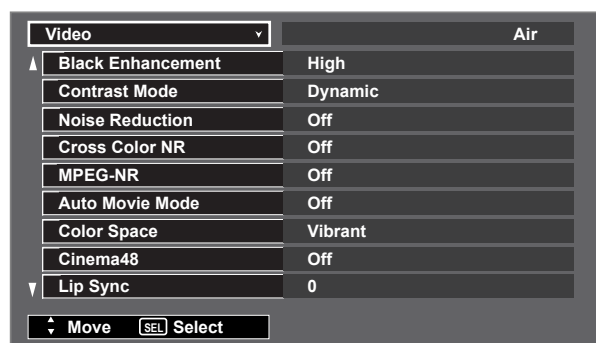
When the Light sensor function is set to ON, Contrast Mode (see below) will be disabled (grayed out).

## Black Enhancement

Use this function to enhance the shadow detail in dark scenes using the settings off, low, middle and high.

### NOTES

- If CONTRAST is selected, you are adjusting CONTRAST. The additional menu items BRIGHTNESS, COLOR, TINT, and SHARPNESS can be selected and adjusted in the same manner.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the COMPONENT VIDEO Y-PbPr input jacks.
- CABLE and AIR share a Video setting. Also, each of the video inputs have their own independent settings.



## Contrast Mode

Use this function to choose between two Contrast Mode settings. Set to DYNAMIC for more contrast and set to NORMAL for a more cinematic film like image.

## Noise Reduction

The NOISE REDUCTION function automatically reduces conspicuous noise in the picture without degrading picture quality. Set NOISE REDUCTION to OFF if you see individual block in the picture.

## Cross Color NR

The Cross Color NR (Noise Reduction) function automatically reduces cross color noise in the picture. Choose between two different levels (Low, High) or select OFF to disable this function.

# Video

## MPEG NR

The MPEG NR (Noise Reduction) function automatically reduces mosquito noise in the picture without degrading picture quality. Set MPEG NR to OFF if the TV experiences picture block noise.

## Auto Movie Mode

Select the AUTO MOVIE MODE function to choose between Original (3:2 pulldown) detection or Smooth Motion feature. Theatrical movies are shot on film at 24 frames or still pictures per second, instead of 30 frames or 60 fields like video. When film is transferred to video for television viewing, the disparity between the two frame rates must be reconciled. This involves a process known as 3:2 pulldown. When AUTO MOVIE MODE is set to ORIGINAL your Hitachi Plasma Television will activate the circuitry for this special feature to improve video performance when watching interlace format film based sources. Set AUTO MOVIE MODE to SMOOTH option to make a smooth and beautiful picture by state of the art interpolation processing technology when watching any film format based sources (see DEMO on next page). Set to OFF to deactivate this feature.

## Color Space

The COLOR SPACE function allows you to select between two color modes. Select VIBRANT for highly saturated (brighter) colors or Auto STD/x.v.Color™ for more natural colors.

**NOTE** x.v.Color™ is only available for HDMI/Component Input and will provide a wide color range.

## Cinema48™

This menu is active for HDMI with 24p or 24 frame per second inputs only. When the input signal is 24fps (Movies), a process called 2-2 pulldown operates and the signal will be converted to 48fps creating a beautiful and smooth picture that is very cinema like.

## Lip Sync

Selecting this feature will allow you to synchronize the audio with the picture signal on a digital or analog source. Use the CURSOR PAD ◀ or ▶ to synchronize the picture and the audio signal. The default value is set to 0.

## Black Side Panel

The BLACK SIDE PANEL function turns the gray side bars from gray to black when watching 4:3 signals in Standard mode.

1. Press the CURSOR PAD ◀ or ▶ to set to ON or OFF.
2. Press EXIT to quit menu or select SET BLACK SIDE PANEL to return to the previous menu.

**NOTES**

- Using the BLACK SIDE PANEL feature stops the aging of the screen in the black panel area. If used for extended periods of time, the center of the screen will become darker and the black side panel area will be brighter when a full screen video is viewed.
- The Side Panel setting will default to grey when the TV is turned off to minimize uneven aging.

## Aspect

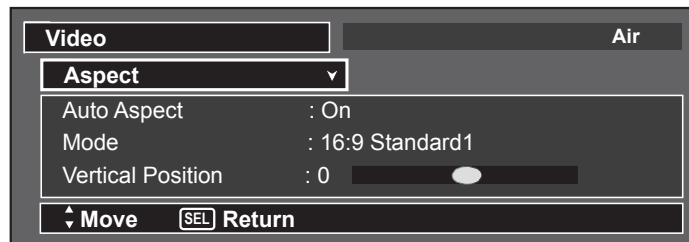
Use this function to select the Picture Format Aspect Ratio.

### Auto Aspect

Automatically adjust the Aspect Ratio depending on the input signal to fill the screen.

## Mode

Manually select the Aspect Ratio. There are different aspect ratio available according with the signal in use. See page 63.



## Vertical Position

This function allows you to move the picture up and down when the aspect mode is 4:3 EXPANDED/ZOOM1/ZOOM2 or 16:9 ZOOM. For example, it will be useful for centering the picture if you want to see sports scores or news tickers. Adjustable range is -10 (video center is toward bottom of screen) to +10 (video is toward top of screen).

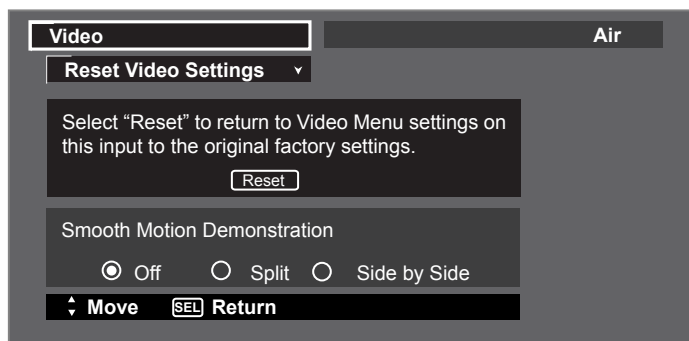
1. Use the CURSOR PAD ▲ or ▼ to select menu item.
2. Press the CURSOR PAD ◀ or ▶ to adjust the function.
3. Press the EXIT button to quit the MENU, or select ASPECT to return to the previous menu.

**NOTES**

- Vertical Position will not be available in 4:3 Standard and 16:9 Standard modes.
- Vertical Position setting returns to "0" automatically after the TV is turned off.

## Reset Video Settings

This function allows you to Reset the Video Menu Settings of the present input and return it to the Dynamic video mode if set to RETAIL Energy Saving Mode and to Day video mode when HOME Energy Saving Mode is used (refer to page 45).



1. Use CURSOR PAD ▲, ▼ to highlight functions.
2. Press the SELECT button or CURSOR PAD ▶ to select Reset Video Settings.
3. Use the CURSOR PAD ▼ to access the Reset softkey.
4. Press the SELECT button to Reset the Video Settings.

You can customize each of the Video Inputs to your preference to increase viewing performance and pleasure, depending upon the video program being viewed. If RESET is selected, only the selected Input will reset to the initial conditions as explained above.

If RESET is selected in Input 1, only Input 1 will return to factory conditions.

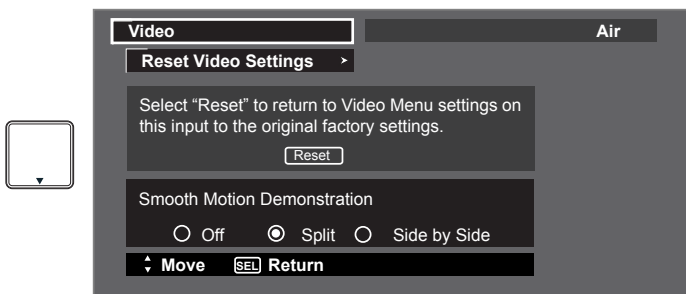
# Video

## SMOOTH Motion Demonstration

This Hitachi new and exclusive state of the art feature makes an extremely smooth and beautiful picture by applying an advanced interpolation processing technology when detecting and receiving automatically film based source material.

Since the advent of television there has been a mismatch between the motion of films in a movie theater to the way it appeared on television. Hitachi exclusive Smooth Motion film processing perfectly matches the motion of movies more accurately than ever before to let you experience not just watch your movies.

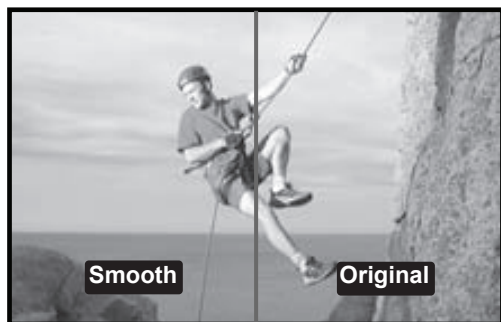
To view the Auto Movie Mode Smooth Motion Demonstration, go to the Video menu, then Select Reset The Video Settings feature. You can choose between two options, the SPLIT or SIDE by SIDE modes.



1. Press the CURSOR PAD ◀ or ▶ to select between OFF, SPLIT or SIDE by SIDE options.
2. Press EXIT to quit menu or select RESET VIDEO SETTINGS to return to the previous menu.

## SPLIT Mode Demonstration

Select the SPLIT mode to see a line splitting the picture by half, where the left half is with the Smooth Motion Demo turn on and the half in the right is with the Smooth Motion Demo turn off. You will see the difference when using Hitachi new feature Auto Movie Mode Smooth Motion in left half within the same picture when you watch a movie in your Hitachi Plasma Television.



## SIDE BY SIDE Mode Demonstration

Select the SIDE BY SIDE mode, to see two completely same pictures in the screen where the left picture is with the Demo turn on and the picture in the right is with the Demo turn off. You will be able to see the difference when using Hitachi new feature Auto Movie Smooth Motion in left picture compared with the same picture on the right when you watch a movie in your Hitachi Plasma Television.



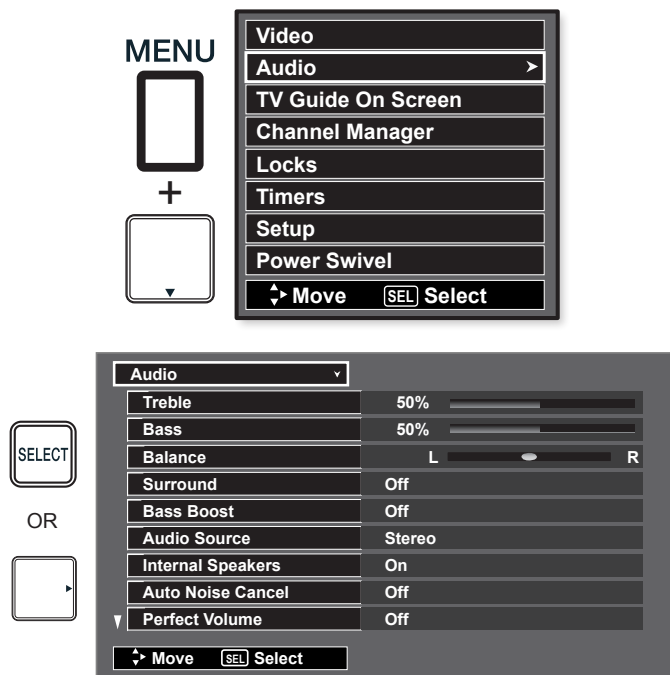
### NOTES

- If you activate one of the two modes for Smooth Motion Demonstration, it will remain turn on until you deactivate it by selecting the OFF option.
- After activating one of the two Demo modes, it will take about 15 seconds to view it.



# Audio

Select AUDIO to adjust the sound to your preference.



## Audio Menu Settings Adjustment

1. Press CURSOR PAD ▲ or ▼ to select menu item.
2. Press CURSOR PAD ◀ or ▶ to adjust the function.
3. Press EXIT to quit the MENU, or select AUDIO to return to the main menu.

**NOTE** If TREBLE is selected you are adjusting treble. The additional menu items BASS and BALANCE can be selected and adjusted in the same manner.

### Treble

This function controls the high frequency audio to all speakers.

### Bass

This function controls the low frequency audio to all speakers.

### Balance

This function will control the left to right balance of the Plasma TV internal speakers.

### Surround

Surround sound is the concept of expanding the spatial imaging of audio from one dimension (Mono/Left-Right) to two or three dimensions. This is often done to create a more realistic audio environment.

1. Use CURSOR PAD to highlight surround option.
2. Use CURSOR PAD to select Off, Normal or Wide.

**Off**: Turns off the surround sound effect.

**Normal Surround**: Provides the surround effect by simulating two or more speakers to the rear of the listener.

**Wide Surround**: This mode simulates an even wider surround sound field.

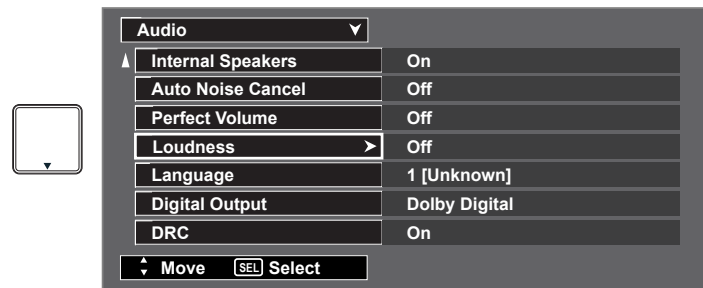
### Bass Boost

This function enhances the low frequencies for more dramatic sound.

### Audio Source

Multi-Channel Television Sound will allow you to select STEREO (a

stereo broadcast), MONO (monaural sound) used when receiving a weak stereo broadcast or SECOND AUDIO PROG (SAP) which may be a secondary language, weather report, etc.



## Internal Speakers

This function is useful when using external speakers. Select ON if using the internal speakers only. Select TV as Center when using the TV as the center speaker. Select OFF if you prefer to use the speakers from a separate stereo system.

## Auto Noise Cancel

This function eliminates the noise between stations. If a channel is tuned and is noisy, it will eliminate the audio for that channel.

## Perfect Volume

This function will automatically adjust volume so each channel and input has the same average volume level.

## Loudness

Set this function to ON to emphasize bass and treble at low volume levels.

## Language

Some programs transmit more than one DTV language option. Most will have English as a default language. The language function will allow you to select up to 4 language options (if available). Please try all available options.

## Digital Output

This function allows you to select between Dolby®Digital and PCM. This setting changes the format of the Digital Optical Output.

**DOLBY DIGITAL** Select this feature if the Digital Audio Output is connected to an amplifier/receiver with a Dolby®Digital only decoder.

**NOTE** \*Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

**PCM**.- Select this feature if the TV is connected to an amplifier/receiver with a PCM only decoder; it will provide two independent soundtrack channels through the optical audio output jack (Digital Audio).

## DRC

Dynamic Range Compression.- This feature is useful for leveling the volume of programs. The loudest sounds are lowered and the quietest sounds are boosted so they are easier to hear. The default setting is ON.

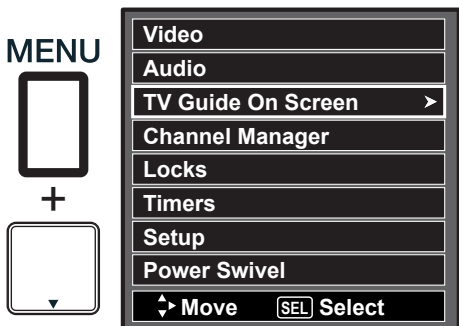
- NOTES**
- The functions Language, Digital Output and DRC are only available when viewing digital programs.
  - The DRC control affects only Dolby®Digital signals decoded internally by the TV.
  - DRC does not affect the Dolby®Digital bitstream available at the digital audio output.

# TV Guide On Screen

The TV Guide On Screen™ system is a built-in feature that provides a channel lineup and program listings in your area. Once the setup process is complete, the program listings are automatically updated several times a day.

## To Setup the TV Guide On Screen™ System:

1. Press the MENU button. Use the CURSOR PAD ▼ to highlight TV Guide On Screen™, then press the SELECT button.



**NOTE** Pressing the GUIDE button also allows you immediate access to this feature.

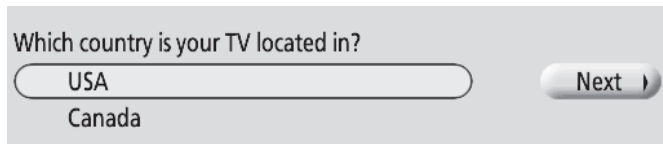
2. Press the SELECT button to continue.

## Setup Procedure:

Screen 1:

Select which country is your TV located in:

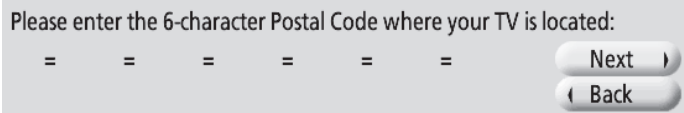
Use the CURSOR PAD ▲ and ▼ to highlight your TV location (USA or CANADA), then press the SELECT button to continue.



Screen 2:

Enter the zip code (USA) or postal code (Canada):

Use the Numeric buttons and the CURSOR PAD and for letter entries to enter the ZIP code (USA) or postal code (CANADA) of your location.



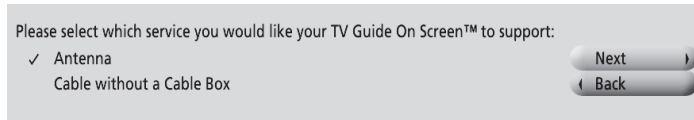
\*For USA is a 5 digit ZIP CODE

\*\*For CANADA is a 6 digit ZIP CODE

Screen 3:

**Please select which service(s) you would like your TV Guide On Screen™ to support (Check all that apply)**

Use the CURSOR PAD ▲ and ▼ to highlight your choice, then press the SELECT button then select Next:



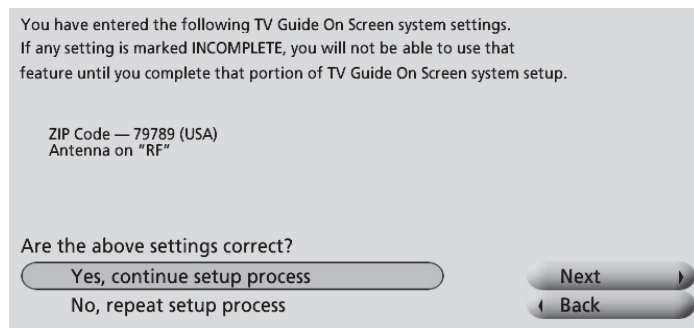
Screen 4:

**Are the above settings correct ?**

Use the CURSOR PAD ▲ and ▼ to highlight your choice, then press the SELECT button then select Next :

\*If all setting are correct please select Yes to continue.

\*If a setting is wrong please select No to modify.



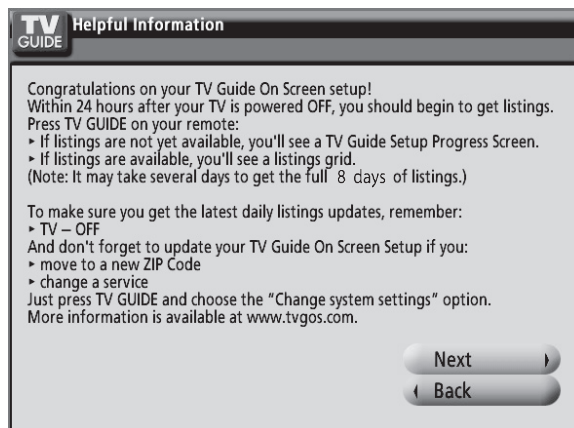
Screen 5:

This shows that the setup procedure is complete.

Use the CURSOR PAD ▲ and ▼ to highlight your choice, then press the SELECT button :

\*If all setting are correct please select Next to finish.

\*If a setting is wrong please select Back to modify.



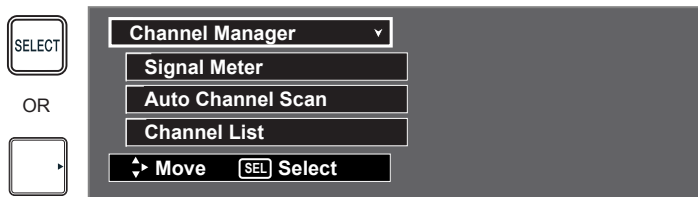
## NOTES

- The Plasma TV should be in standby mode in order to continually receive updated program listings.
- For using and navigating the TV Guide On Screen™ System please refer to the included TV Guide On Screen User's Manual.

# Channel Manager

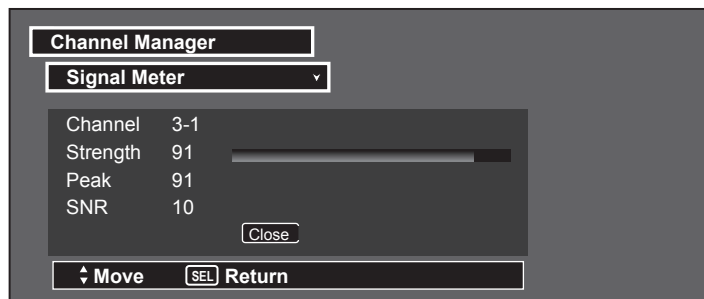
Select CHANNEL MANAGER to set your Antenna options, run Auto Channel Scan, Check Signal Meter and Set Channel List.

1. Press CURSOR PAD ▲, ▼ to highlight functions.
2. Press the SELECT button or CURSOR PAD ► to select.



## Signal Meter

Select SIGNAL METER when using an indoor or outdoor antenna. This feature will show the signal strength and peak values of the Antenna signal to help you adjust your antenna to optimize signal reception.

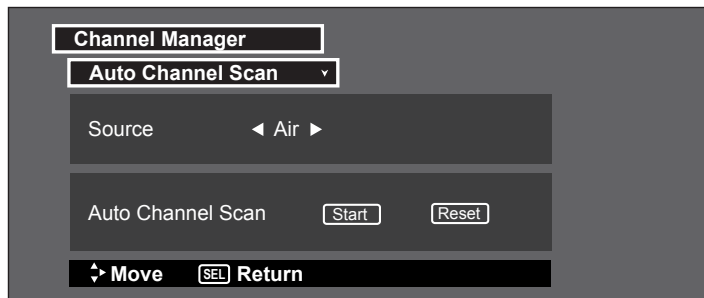


Use the CURSOR PADS buttons ▲, ▼ and the SELECT button to highlight and select CLOSE to exit.

**NOTE** The Signal Meter will not be available (grayed out) when watching analog channels.

## Auto Channel Scan

This feature will automatically store active Analog and Digital channels in Auto Channel Scan memory.



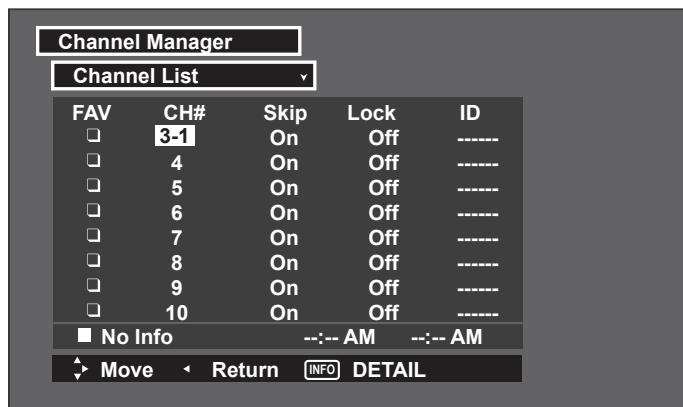
1. Use the CURSOR buttons ◀ or ▶ to highlight AIR, CABLE (1) or CABLE(2) source.

2. Press the CURSOR buttons ◀ or ▶ to highlight the START or RESET option.
3. Press the SELECT button to select.

**NOTE** If certain channels are poor or not possible in cable(1) mode, set cable source to cable(2) by using the CURSOR buttons ◀ or ▶.

## Channel List

This function allows you to review which channels are labeled (ID), which have been added to CHANNEL MEMORY (SKIP), which are protected by LOCK and which are your FAVORITE (FAV) CHANNELS.



1. Use the CURSOR PAD to navigate the Channel List.
2. Press the SELECT button to select ON or OFF on the SKIP and LOCK columns.
3. To select LOCK column, input the access code. (Default access code: 0000)
4. Press the FAV button to set or remove the FAVORITE settings.
5. Press the EXIT button to return to normal viewing.

**NOTE** The Channel List cannot be updated by only changing the cable source. Auto Channel Scan must be performed for the Channel List to be updated.

## IMPORTANT NOTICE

United States federal law requires broadcasters to stop transmitting analog (non-digital) television signals after February 17, 2009. Accordingly, this TV's analog tuner will not be capable of receiving over-the-air analog television broadcasts after such analog broadcasts are no longer available.

After February 17, 2009, this TV's analog tuner will continue to work with compatible cable and satellite TV systems, gaming consoles, VCRs, DVD players and other similar products.

Both before and after February 17, 2009, this TV's digital tuner will receive available over-the-air digital television broadcasts using an antenna and other digital television broadcasts using compatible cable, satellite or other digital television system connections.

Please review this Operating Guide for further information regarding such connections.

Hitachi supports the DTV transition and as a member of the DTV Transition Coalition urges consumers to visit these web sites for interactive guides and further detailed information:

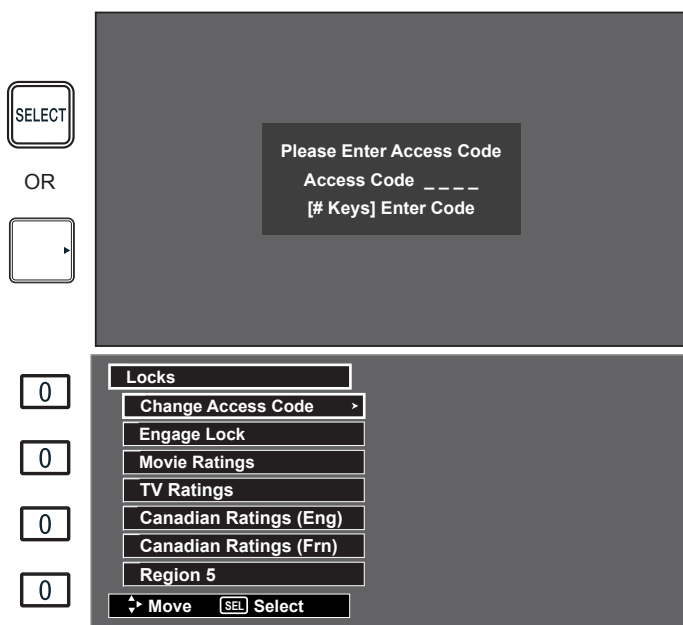
- [www.dtvtransition.org](http://www.dtvtransition.org)
- [www.myceknowhow.com](http://www.myceknowhow.com)
- [www.dtv2009.gov](http://www.dtv2009.gov)
- [www.youtube.com](http://www.youtube.com)

# Locks

This function will block out the picture and sound of the selected channel or video input.



The code to enter the Locks feature is a four digit access code number. The factory preset code is 0000. Use the NUMBER buttons to enter the access code.



1. Use the CURSOR PAD ▲, ▼ to highlight the desired function in the LOCKS menu.
2. Press the SELECT button to select.

## Change Access Code

1. To change the ACCESS CODE NUMBER, select CHANGE ACCESS CODE to change the factory preset code (0000) to your preference.

If you forget your ACCESS CODE NUMBER, use the factory code 7777 to erase your key number. This will reset the access code number back to the factory preset (0000).

2. Enter a new four digit number.
3. Press EXIT to quit the menu.

## Engage Lock

When ENGAGE LOCK is selected, SET CHANNEL LOCK and LOCK PANEL CONTROL KEYS can be set individually.

When SET CHANNEL LOCK is turned on, the picture and sound for the chosen channel will be blocked out.

When LOCK PANEL CONTROL KEYS is turned on, all buttons on the Side Panel will be deactivated, except the POWER Switch.

## Movie Ratings

Use Movie Ratings to prevent viewing of any movie that you feel may be inappropriate due to its content (see page 40).

## TV Ratings

Use TV Ratings to prevent viewing of any TV program that you feel may be inappropriate due to its content(see page 40).

## Canadian Ratings (Eng)

Use CANADIAN RATINGS (ENG) to block any type of movie and television program in Canada that you feel might be inappropriate in its content (see page 40).

## Canadian Ratings (Frn)

Use CANADIAN RATINGS (FRN) to block Canadian French programs according to various program ratings that you feel might be inappropriate in its content (see page 41).

## Region 5

Use REGION 5 to block various types of movies and television programs based on ratings systems used in U.S. that you feel may be inappropriate due to its content (see page 41). The REGION 5 option will operate for Digital Channels (ATSC) only.

## Ratings Procedure

1. Use the CURSOR PAD ▲, ▼ to select the RATING CATEGORY (MOVIE, TV, etc.) that you want to block.
2. Press SELECT to block the RATING that you have selected.
3. Press EXIT to quit the menu.

# Locks

## Motion Picture Ratings Table

NOT RATED	Contains no rating. Not Rated (NR) and Not Applicable (NA) programs. Movie has not been rated or ratings do not apply.
G	General audiences. All ages admitted.
PG	Parental guidance suggested. Some material may not be suitable for children.
PG-13	Parents strongly cautioned. Some material may be inappropriate for children under 13.
R	Restricted. Under 17 requires accompanying parent or adult guardian.
NC-17	No one 17 and under admitted.
X	Adults only

### NOTES

- A movie rating is dependent upon the movie that is viewed. If the movie does not carry a rating, the TV will not block it.
- Blocking NOT RATED programs may block emergency programming, sports, news, public service announcements, religious programs and weather.

## TV Parental Guide Ratings Table

TV-Y	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.
TV-PG	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	Parents strongly cautioned. This program may contain sophisticated themes, intense sexual situation, more intense violence and intensely suggestive dialogue.
TV-MA	Mature audiences only. This program may contain mature themes, indecent language, graphic violence, and explicit sexual content.
FV: Fantasy/Cartoon Violence    V: Violence    S: Sexual Situation    L: Adult Language    D: Sexually Suggestive Dialogue	

### NOTES

- If you Block TV-14D, you will still permit TV-MA programs; If you block TV-14V, you will automatically block TV-MAV programs, but you will still permit TV-MALS programs. This means that the TV will block violence in TV-14 and higher (TV-MA), but not language and sex.
- TV program ratings are dependent on the broadcaster. If the program is not rated, the TV will not block it.

## Canadian Ratings English Table

C	Programming intended for children under age 8 - Violence Guidelines; Careful attention is paid to themes, which could threaten children's sense of security and well-being. There will be no realistic scenes of violence. Depictions of aggressive behaviour will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature. Other Content Guidelines: There will be no offensive language, nudity or sexual content.
C8+	Programming generally considered acceptable for children 8 years and over to watch on their own - Violence Guidelines: Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict; or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. Other Content Guidelines: There will be no profanity, nudity or sexual content.
G	General Audience - Violence Guidelines: Will contain very little violence, either physical or verbal or emotional. Will be sensitive to themes which could frighten a younger child, will not depict realistic scenes of violence which minimize or gloss over the effects of violent acts. Other Content Guidelines: There may be some inoffensive slang, no profanity and no nudity.
PG	Parental Guidance - Programming intended for a general audience but which may not be suitable for younger children. Parents may consider some content inappropriate for unsupervised viewing by children ages 8-13. Violence Guidelines: Depictions of conflict and/or aggression will be limited and moderate; may include physical, fantasy, or supernatural violence. Other Content Guidelines: May contain infrequent mild profanity, or mildly suggestive language. Could also contain brief scenes of nudity.
14+	Programming contains themes or content which may not be suitable for viewers under the age of 14 - Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens. Violence Guidelines: May contain intense scenes of violence. Could deal with mature themes and societal issues in a realistic fashion. Other Content Guidelines: May contain scenes of nudity and/or sexual activity. There could be frequent use of profanity.
18+	Adult - Violence Guidelines: May contain violence integral to the development of the plot, character or theme, intended for adult audiences. Other Content Guidelines: May contain graphic language and explicit portrayals of nudity and/or sex.



Canadian Ratings French Chart

G	General - Programming intended for audiences of all ages. Contains no violence, or the violence content is minimal or is depicted appropriately with humor or caricature or in an unrealistic manner.
8 ans+	8 + General - Not recommended for young children - Programming intended for a broad audience but contains light or occasional violence that could disturb young children. Viewing with an adult is therefore recommended for young children (under the age of 8) who cannot differentiate between real and imaginary portrayals.
13 ans+	Programming may not be suitable for children under the age of 13 - Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Viewing with an adult is therefore strongly recommended for children under 13.
16 ans+	Programming is not suitable for children under the age of 16 - Contains frequent scenes of violence or intense violence.
18 ans+	Programming restricted to adults - Contains constant violence or scenes of extreme violence.

Region 5 Alternate Ratings (Example Only)

G	General audiences. All ages admitted.
PG	Parental guidance suggested. Some material may not be suitable for children.
PG-13	Parents strongly cautioned. Some material may be inappropriate for children under 13.
R	Restricted. Under 17 requires accompanying parent or adult guardian.
NC-17	No one 17 and under admitted.
X	Adults only.
Y	Adults only.

- NOTES
- In order to set the Region 5 Ratings the ATSC Digital channel received must include Region 5 Ratings data. To see if the channel has Region 5 Ratings, press the INFO key on the R/C. See fig. (1) below for reference.
  - Once the TV has received Region 5 Ratings data, the Region 5 option in the lock menu will display the data.

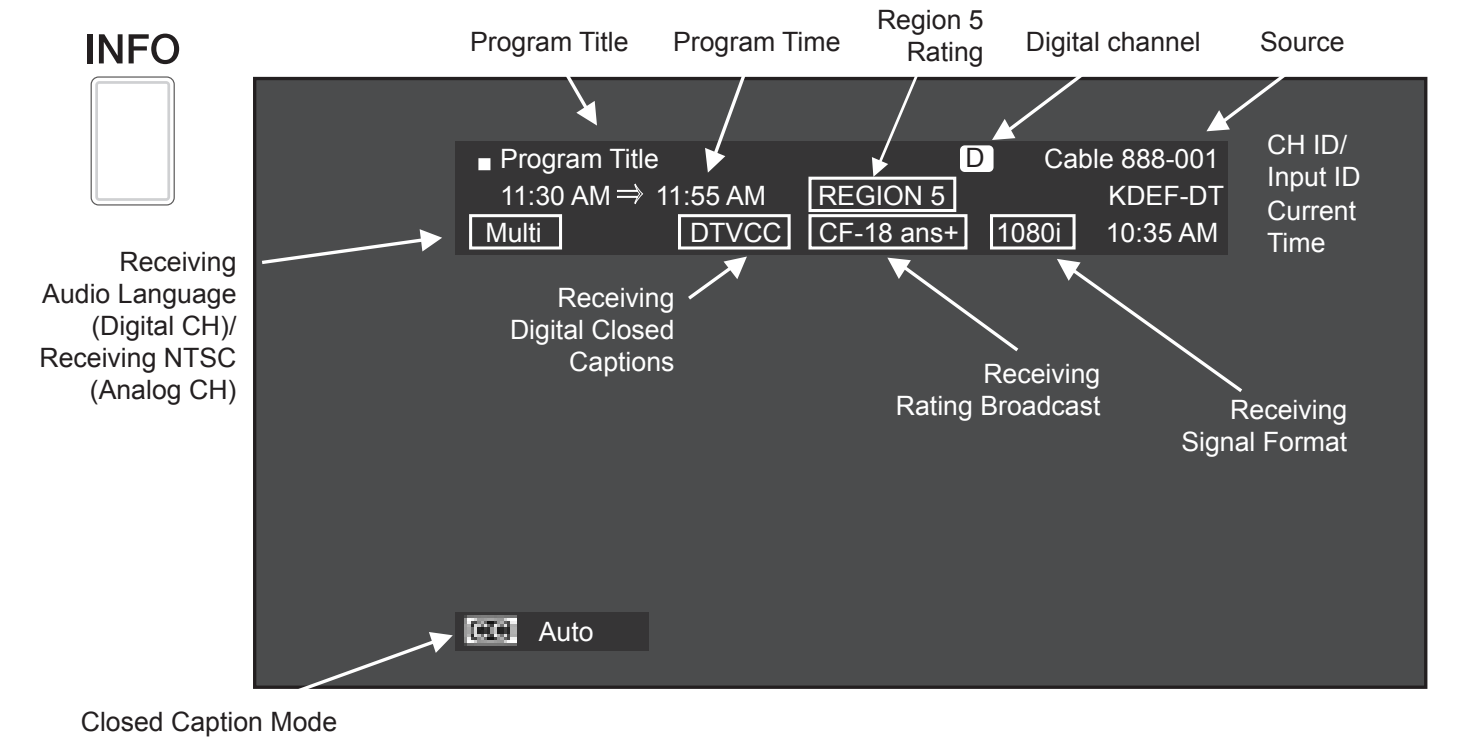


Fig. (1) Channel Information

# Timers

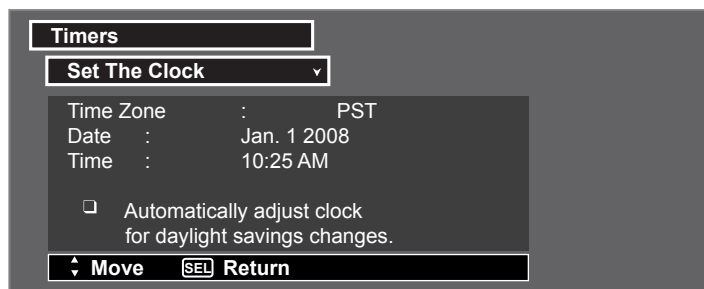
Select TIMERS to set your Clock, Sleep Timer and Day/Night Timer.



1. Use the CURSOR buttons ▲ or ▼ to highlight the function to be adjusted.
2. Press the SELECT button to select.

## Set The Clock

The Clock must be adjusted before you can use the DAY/NIGHT TIMER feature.



1. Use the CURSOR PAD ▲, ▼, ◀, ▶ to highlight and setup the TIME ZONE settings.
2. If you observe daylight savings, use the CURSOR PAD to highlight the DAYLIGHT SAVING CORRECTION checkbox and press the SELECT button to activate it.
3. Use the CURSOR PAD ▲, ▼, ◀, ▶ to highlight and setup the CURRENT TIME (hour and minute), AM or PM, MONTH, DAY, and YEAR.
4. Use the CURSOR PAD ▲, ▼ to adjust settings.
5. Press the SELECT button to set the TIME AND DATE.
6. Press EXIT to quit the menu or select SET THE CLOCK to return to the previous menu.

## NOTES

- When AUTOMATICALLY ADJUST CLOCK FOR DAYLIGHT SAVING CHANGES is checked ✓, the TV will automatically calculate the clock adjustment for Daylight Saving.
- The TV counts electrical pulses for regulating the TIMERS. When the power cord is unplugged in quickly, the clock is stopped momentarily and the TIME indication will become slow.

- The Set The Clock submenu will be unavailable (grayed out) when TV Guide On Screen™ is set up (refer to page 37).

## Set Sleep Timer

Select this feature to set your SLEEP TIMER from 30 minutes to 3 hours (30 minute increments).



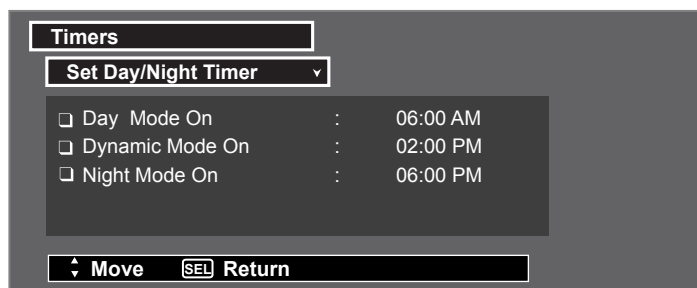
7. Press the CURSOR PAD ▶ repeatedly to set your Timer from 0:00, 0:30, 1:00, 1:30, 2:00, 2:30 and 3:00.

## NOTE

The Sleep Timer info will show for 1 minute before the TV turns off.

## Set Day/Night Timer

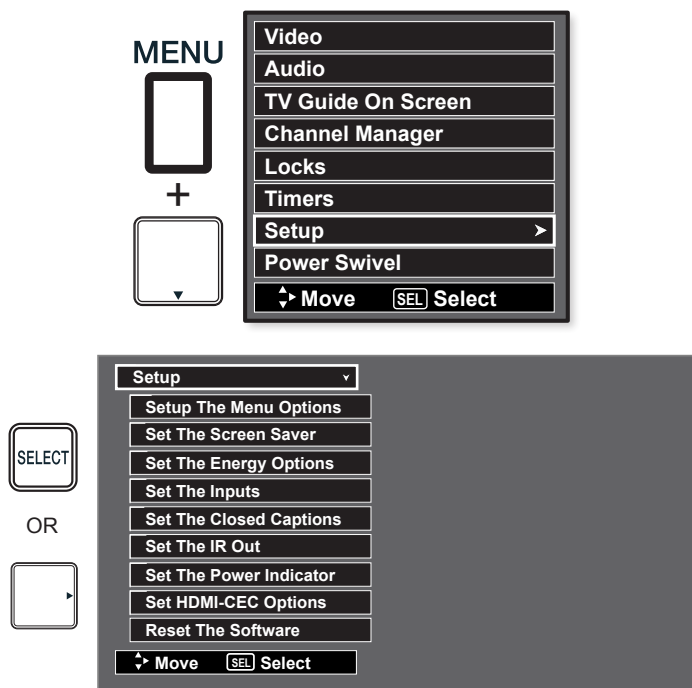
Select this feature to activate and set your TV's DAY/NIGHT PICTURE MODE automatically. This feature is not available until the clock is set.



1. Use the CURSOR PAD to highlight SET DAY/NIGHT TIMER settings and press the SELECT button to select the option.
2. Use the CURSOR PAD ▶, ▲ or ▼ to select DAY MODE ON and set its TIMER.
3. Use the CURSOR PAD ▶, ▲ or ▼ to select DYNAMIC MODE ON and set its TIMER.
4. Use the CURSOR PAD ▶, ▲ or ▼ to select NIGHT MODE ON and set its TIMER.
5. Press EXIT to quit the menu or select SET DAY/ NIGHT TIMER to return to the previous menu.

# Setup

Select **SETUP** when setting your TV up for the first time.



1. Use the **CURSOR PAD** ▲ or ▼ to select the submenu of your choice.
2. Press the **SELECT** button to select.

## Set The Menu Options

Setup the Language and Contrast of the Menu OSD.



## Set The Language

This feature will allow you to select any one of three different languages for all on-screen displays.

1. Use the **CURSOR PAD** ◀ or ▶ to select the language of your choice.
2. Press **EXIT** to quit menu or select **SET THE MENU OPTIONS** to return to previous menu

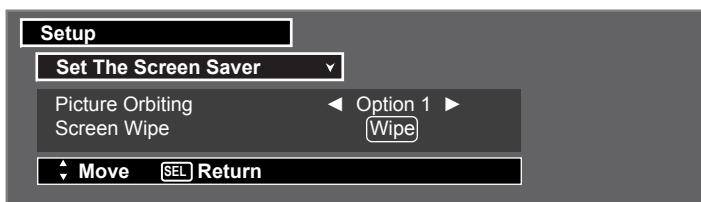
## Set The OSD Contrast

This function allows you to change the contrast of OSD based on 4 levels (min, low, medium and max).

1. Use the **CURSOR PAD** ▲ or ▼ to highlight **SET THE OSD CONTRAST (MAX, MEDIUM, LOW, MIN)** of your choice. Use the **CURSOR PAD** ◀ or ▶ to select one option.
2. Select **MAX** for a lighter OSD, select **MEDIUM, LOW** for darker OSD and **MIN** for the darkest OSD.
3. Press the **SELECT** button to set the option.
4. Press **EXIT** to quit menu or select **SET THE MENU OPTIONS** to return to the previous menu.

## Set The Screen Saver

Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (non-moving) patterns can cause permanent damage to the Plasma Television. Use the **SCREEN SAVER** feature to minimize uneven aging of the screen.



1. Use the **CURSOR PAD** ▲ or ▼ to highlight Screen Saver's Picture Orbiting and Screen Wipe options.
2. Use the **CURSOR PAD** ◀ or ▶ to select your choices.

### Option 1

The whole picture will shift every 2 minutes by one pixel.

### Option 2

The whole picture will shift every 10 minutes by one pixel.

### Option 3

The whole picture will shift every 20 minutes by one pixel.

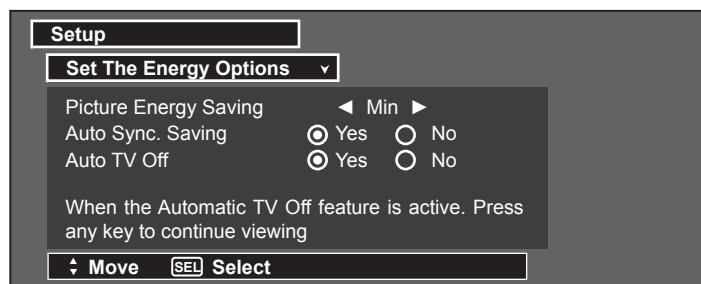
## Screen Wipe

If uneven aging occurs, use the Screen Wipe (White Field Signal) for at least 10 minutes to refresh any damage that may have occurred from an uneven aging. Screen Wipe can resolve some temporary image retention issues. It is recommended to use caution and not to display still images for extended periods of time. If caution is not used, permanent damage may occur.

1. Use the **CURSOR PAD** ▲ or ▼ to highlight Screen Wipe.
2. Press the **SELECT** button to start.
3. Press the **EXIT** button to return to normal viewing.

## Set The Energy Options

Use this feature to enable power consumption saving settings on your Hitachi Plasma TV.



1. Press the **CURSOR PAD** ▲ or ▼ to highlight Energy Options.
2. Press the **CURSOR PAD** ◀ or ▶ to select your choices.

## Picture Energy Saving

This function allows you to choose power consumption reduction based on 3 levels (Min., Medium and Max).

# Setup

## Auto Sync. Saving

Use this feature to turn power off automatically when a video input signal is not detected for 30 seconds.

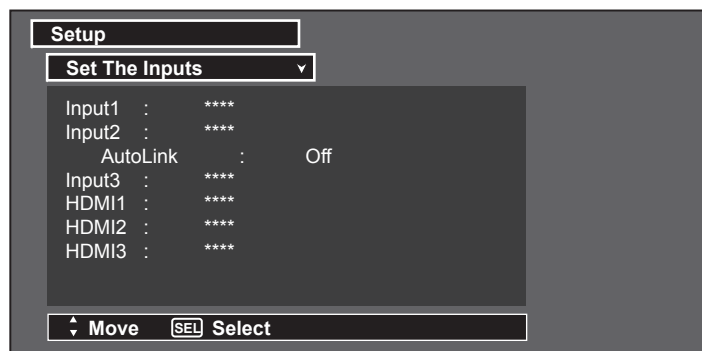
**NOTE** This feature works only for INPUT 1, 2, 3 and HDMI 1, 2, 3.

## Auto TV Off

Use this feature to turn power off automatically when no operation of TV is detected for more than 3 hrs. When the Automatic TV Off feature is active. Press any key to continue viewing.

## Set The Inputs

Use this feature to give a name to any of the six video inputs. Select Game Name when playing with a Video game system to avoid delay between picture and user control of the game machine.



1. Press the **CURSOR PAD** ▲ or ▼ to highlight the video inputs.
2. Press the **CURSOR PAD** ◀ or ▶ to select your choices.

**NOTE** The inputs labeled Gray out (Skip) or Hide (Skip) are disabled in the INPUTS selection.

## INPUT 2 Auto Link


Use this function to automatically turn the TV on and tune to INPUT 2 when it detects a video signal to INPUT 2.

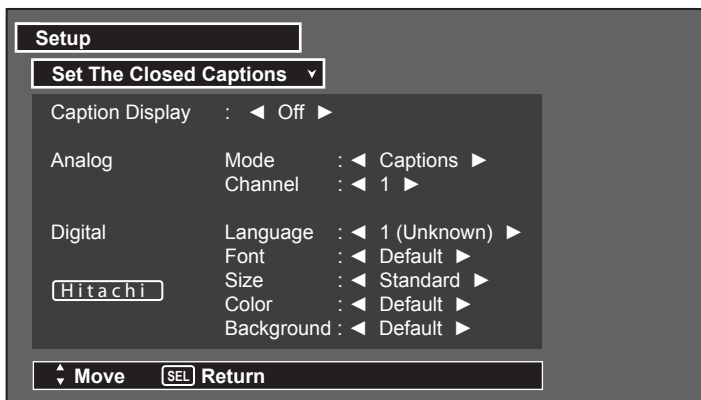
1. Use the **CURSOR PAD** ▲ or ▼ to highlight the **AUTO LINK** option and ◀ or ▶ to select between the Off and Auto settings.
  - **Auto**  
When **AUTO** is selected, the TV will turn on and switch to INPUT 2 automatically, when the INPUT 2 input device is turned on. This is convenient when you want to watch a movie with your VCR or DVD player.
  - **Off**  
Select **OFF** to disable this function.
2. Press **EXIT** to quit menu or select **SET THE INPUTS** to return to previous menu.

**NOTES**

- Once the TV has been turned on using the **AUTO LINK** feature, it must be reset before **AUTO LINK** is used again. To do this, turn your VCR or DVD player OFF. This feature is now reset and will turn on your TV as described above.
- If no remote control button is pressed after the TV is turned on by **AUTO LINK**, the TV will automatically turn off after three hours.

## Set The Closed Captions

Closed Captions are the dialogue, narration, and/or sound effects of a television program or home video which are displayed on the TV screen. Your local TV program guide denotes these programs as **CC** or .



1. Use the **CURSOR PAD** ◀, ▶, ▲ and ▼ to highlight and select the function to change.
2. Press **EXIT** to quit menu or select **SET THE CLOSED CAPTIONS** to return to the previous menu.

### Caption Display:

**ON/OFF** will turn the display **CC** on or off.

**AUTO** will turn the display **CC** on when Mute/Soft Mute is on.

### Analog Captions:

Set **CAPTIONS** for Analog programs. This function will help choose and set available mode and channel.

### Caption Mode:

**CAPTIONS** is for the program you are viewing.

**TEXT** is for additional information such as news reports or a TV program guide. This information covers the entire screen and viewing the TV program is not possible. Text may not be available with every **CC** program.

### Channel:

1 is used for the primary language (usually English).

2 is sometimes used for a second language (may vary by region).

3 is sometimes used for a third language (may vary by region).

4 is sometimes used for a fourth language (may vary by region).

### Digital Captions

Set captions for digital programs. This function will help choose and set available language, font, size, color and background style of digital captions.

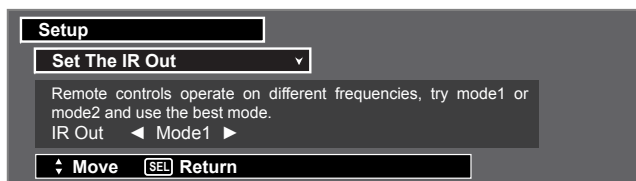
### NOTES

- Some types of digital closed captions will not work with this TV.
- Caption Display will not work when viewing a 480i, 480p, 720p, 1080i or 1080p input via the COMPONENT: Y-PBPR or HDMI inputs.
- Closed Caption and Digital Captions availability and content depends on the broadcaster. Closed Caption is available when Closed Caption icon is displayed on screen.
- Digital Captions language will not be available (grayed out) when using analog channels.

# Setup

## Set The IR Out

This feature allows the customer to hide and operate external home theater components (VCR, DVD player or cable box) by using their original remote control through the Hitachi Plasma TV set with the provided IR Out cable. Also called IR Passthru, this feature will let your TV receive the (IR) infrared control codes and transmit them to your hidden equipment.



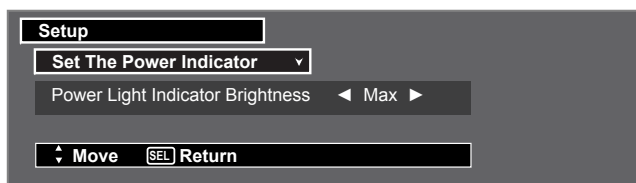
1. Use the **CURSOR PAD ▲** or **▼** to highlight **IR Out** function.
2. Use the **CURSOR PAD ◀** or **▶** to select **Mode1** or **Mode2** option.
  - Select **Mode 1** to operate 38KHz frequency remote control signals thru the IR Out Terminal. The reach of the original remote control to the TV IR Receiver is 10m (max).
  - Select **Mode 2** to operate 56KHz frequency remote control signals thru the IR Out Terminal. The reach of the original remote control to the TV IR Receiver is 10m (max).
3. Press **EXIT** to quit menu or select **SET THE IR OUT** to return to previous menu.

The IR Out options (Mode 1, Mode 2) are related to the distance between the original remote control of the external equipment and the TV IR receiver in a straight line. The operation distance for Mode 1 and Mode 2 options will be reduced if the angle of the remote control position is changed.

**NOTE** For IR Out cable connection please refer to page 15 or check the included Easy Graphic Guide.

## Set The Power Indicator

This feature allows you to adjust the brightness intensity of the LED indicating light in the Front of your Hitachi Plasma TV. Select MAX or LOW for maximum brightness or lowest brightness. Select OFF to turn off the indicating light.



## Set HDMI-CEC Options

Set to ON this feature will enable HDMI-CEC signal bus to allow your Hitachi Plasma TV to discover and communicate automatically with other compatible HDMI-interfaced Audio/Video equipment. CEC signal bus makes possible global controls based on "plug & play" automation to minimize the number of IR remotes and key-presses required for basic operation of your AV system. Select OFF to disable this option.

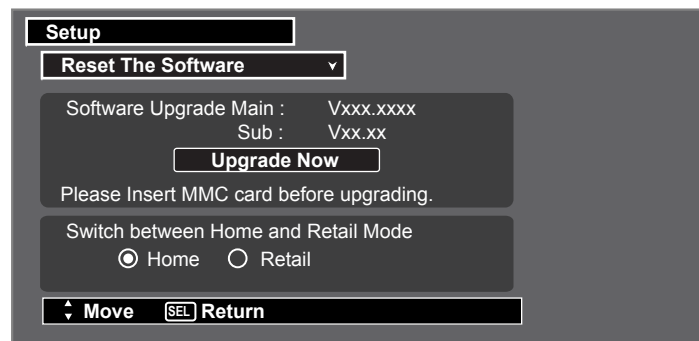


With "HDMI-CEC" feature, you can interface the connected equipment through the HDMI terminal automatically if the connected equipment meets an industry standard "HDMI CEC (Consumer Electronics Control)". Please check if the connected equipment supports HDMI CEC before using this feature. For example, here are two common functions operating when HDMI CEC is set to ON.

<b>Auto Input change and Auto Play</b>	<b>Condition :</b> While the Plasma TV is in Standby mode. When the connected equipment starts (such as DVD playback and Disc insertion), the Plasma TV is automatically turned On and switches the picture and audio to HDMI input.
<b>System Standby</b>	<b>Condition :</b> While the Plasma TV is On. When the Plasma TV is switched off or set to Standby mode, the connected equipment is also turned off or in Standby mode.

## Reset The Software

This feature shows software information and easy upgrade procedure. This function allows the TV software to be upgraded by using a flash card (**MMC/SD CARD**). If a future software upgrade is required for your TV, **HITACHI** will notify and provide you with a flash card. In order to receive written notification and the flash card, please complete and return the warranty card.



1. Insert **MMC/SD CARD**.
2. Press the **CURSOR PAD ▲** or **▼** to highlight **UPGRADE NOW**.
3. Press the **SELECT** button to select and start upgrading.
4. Unplug the AC power cord or press the **POWER SWITCH** when the **UPGRADE** is complete.

**NOTE** Any power interruption during the upgrade process will cancel the upgrade. When this happens, repeat the upgrade procedure.

## Switch between Home and Retail Mode

This function allows you to return to the Energy Savings Initial Setting screen (see page 13).

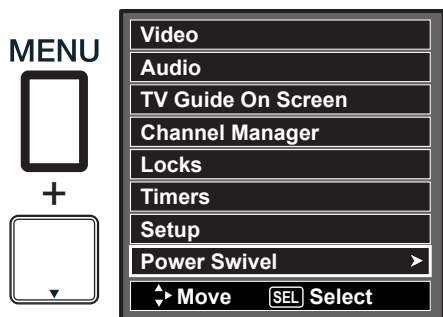
1. Use **CURSOR PAD ▲, ▼** to highlight functions.
2. Use **CURSOR PAD ◀, ▶** to select Home or Retail mode.
3. Press the **SELECT** button.

**NOTE** RETAIL Mode is intended for showroom or shop use only, if you make any video or audio adjustment changes in this mode they will not be saved when the TV is turned Off.



# Power Swivel

This feature controls the motorized stand. It allows the customer to turn the Plasma Television left or right using the remote control. This feature is only available when the Table Top Stand is connected.



1. Use the **CURSOR PAD** ◀ or ▶ to unlock or lock the Power Swivel. Exit the OSD menu system before controlling the motorized stand.



2. Press the **CURSOR PAD** ▶ to rotate the TV to the right.
3. Press the **CURSOR PAD** ◀ to rotate the TV to the left.
4. Release the **CURSOR PAD** to stop rotation

## NOTES

- The Power Swivel has a maximum turning angle of 30° (left and right).
- Do not place any objects in the path of the plasma television when using the power swivel feature.
- Before using the power swivel, please make sure that the path of the plasma television is clear of any fingers, hands or any other body parts to avoid causing injury.

# Equipment Care and Troubleshooting

## DO

Dust the screen and cabinet with a soft cloth.

Clean the screen with a soft cloth moistened in warm water and dry with a soft cloth. A mild soap may be used if the screen is extremely dirty.

Place your Plasma Television away from extreme heat, humidity and extremely dusty places.

Remove the plug from the wall outlet if your Plasma Television will not be used for a long period of time, for instance, when you go on vacation.

## DO NOT

Do not clean your screen with strong cleaners, polishes or a chemically treated cloth.

Do not place rubber or vinyl products or cellophane tape on your Plasma Television.

Avoid repeatedly touching the screen.

Do not subject the remote control to shocks such as dropping it on the floor, etc. This may cause damage to the precision parts.

Avoid placing the remote control in a high humidity place or getting it wet. Do not leave it on or near a heater. Excessive heat or moisture may cause the unit to fail.

When the batteries run down, remote control operation will become erratic or become unresponsive. Replace the old batteries with two new "AAA" size batteries. Do not use an old battery with a new battery.

Exposing the screen to direct sunlight for a long period of time or heat may cause damage to the plasma screen.

## TROUBLESHOOTING

Your HITACHI Plasma Television incorporates advanced power surge protection technology designed to protect against component or circuit damage due to external or internal voltage power surges.

IF YOUR TELEVISION SHOULD APPEAR TO HAVE A LOSS OF POWER, PLEASE FOLLOW THIS PROCEDURE:

1. Press the POWER SWITCH (ON/OFF SWITCH) once.
2. If there is still no power, wait 30 seconds and press the POWER SWITCH again.
3. If there is still no power, unplug the power cord from the wall. Wait 30 seconds and plug the power cord back in. Press the POWER SWITCH again.

This protective technology should provide or years of lasting entertainment from your HITACHI Plasma Television.

If there is a problem with your TV, before calling a service technician, check the following tables first. If the problem cannot be solved with the suggested procedures, contact 800-HITACHI. For your safety, NEVER try to repair the product yourself.

### When the Following Messages Appear on the Screen

Message	Condition / Action	Pages
Power Saving	This indicates it is in Power Save mode. This message appears 5 seconds before Power Save mode starts. The indicating lamp lights in orange. <ul style="list-style-type: none"><li>• Check if the input selection matches the connection terminal.</li><li>• Check if the cable is connected correctly and firmly.</li><li>• Check if the power of any external equipment is ON.</li></ul>	9, 14~17
No Sync. Signal	The unit cannot detect any signals from any input terminals. <ul style="list-style-type: none"><li>• Check if the cable is connected correctly and firmly.</li><li>• Check if the power of any external equipment is ON.</li><li>• Check if the input selection matches the connection terminal.</li><li>• This message will be displayed for 25 seconds then the TV will go to Power Save mode and the screen will go black. The TV screen can be restored by changing Inputs.</li></ul>	14~17 49
Channel Not Available	This shows the selected channel is not available. <ul style="list-style-type: none"><li>• Check the signal meter.</li><li>• Check if the source of interference is shielded correctly.</li><li>• Move these kinds of electrical devices away from the unit.</li></ul>	38, 49

# Troubleshooting

## Symptom and Checklist

SYMPTOM	CHECKLIST	PAGES
No picture - no sound	<ul style="list-style-type: none"> <li>Check the Indicating lamp status (Off, Red, Blue or Orange).</li> <li>Check the connection of the power cord and/or other cables.</li> <li>Check if the power of the unit or external equipment is ON.</li> <li>Check if the correct mode is selected.</li> <li>Check if the unit is in "Standby mode" or "Power Save mode".</li> <li>Adjust the values in "Video menu" and "Audio menu".</li> </ul>	9, 12, 14~17
Multiple images-normal sound	<ul style="list-style-type: none"> <li>Check the connections to external equipment.</li> </ul>	14~17
Intermittent interference	<ul style="list-style-type: none"> <li>Check if the source of interference is shielded correctly.</li> <li>Move these kinds of electrical devices away from the unit.</li> </ul>	49
Normal picture, but no sound	<ul style="list-style-type: none"> <li>Check the volume level.</li> <li>Check if the MUTE button has been pressed or not.</li> <li>Check the connections to external equipment.</li> <li>Try next/other Audio Language.</li> </ul>	11, 14~17, 19, 36
No picture - normal sound	<ul style="list-style-type: none"> <li>Check the value level of "Brightness" and "Contrast" in "Video Menu".</li> </ul>	31, 33
The remote control does not work.	<ul style="list-style-type: none"> <li>Check if the batteries are installed correctly.</li> <li>The batteries might be exhausted. Replace them with new ones.</li> <li>Remove all obstructions from in front of the sensor window on the unit.</li> <li>Check if the buttons on the control panel are working.</li> </ul>	6, 9
The buttons on both the remote control and control panel do not work.	<ul style="list-style-type: none"> <li>Unplug and connect the power cord again.</li> </ul>	7, 47
Normal picture but no color-normal sound	<ul style="list-style-type: none"> <li>Check the connections to external equipment.</li> </ul>	14~17
No picture The Indicating lamp → Off	<ul style="list-style-type: none"> <li>Check if the power cord is plugged into the socket securely.</li> <li>Check if the main power is on.</li> </ul>	7, 9
No picture The Indicating lamp → Orange It means that the unit is in "Power Save mode".	<ul style="list-style-type: none"> <li>Check if all the cables to external equipment are connected correctly and securely.</li> <li>Check if the power to the external equipment is ON.</li> <li>Refer to "Power Save Mode" and "When the Following Messages Appears on the Screen".</li> </ul>	9, 14~17, 47
No picture The indicating lamp → Blue	<ul style="list-style-type: none"> <li>Check if the signal cable is connected correctly and securely.</li> <li>Adjust the level of Brightness and Contrast lower.</li> </ul>	12, 14~17, 31, 33
Some screen display aspects cannot be switched in.	<ul style="list-style-type: none"> <li>Check the signal status by pressing the INFO button on the remote control. The available screen display aspect is different depending on the current signal status.</li> </ul>	11, 19, 63
No power	<ul style="list-style-type: none"> <li>Check or ensure Power switch is on.</li> <li>Normally, if Power switch is On, the Stand By LED will be lit.</li> </ul>	9, 12
Turns Off by itself	<ul style="list-style-type: none"> <li>Check or ensure Timer settings are not activated.</li> </ul>	11, 19, 42
Turns On by itself	<ul style="list-style-type: none"> <li>Check if either HDMI-CEC or Auto-Link features are activated.</li> </ul>	11, 19, 44, 45
Picture may "block" or freeze when watching a digital channel.	<ul style="list-style-type: none"> <li>Check signal strength and noise levels under "Signal Strength Meter".</li> </ul>	38
Only some buttons work on remote control	<ul style="list-style-type: none"> <li>Try pressing the TV button to ensure the remote is in TV mode before pressing commands. Remember, your remote control can control other devices, besides your TV, it is a universal remote control. If problem remains, please try a new set of batteries.</li> </ul>	6, 11, 18

## HDMI Issues

SYMPTOM	CHECKLIST	PAGES
No picture - no sound	<ul style="list-style-type: none"> <li>Make sure you have selected the correct HDMI input. Toggle through them while HDMI device is ON or during playback.</li> <li>Unplug and re-plug HDMI connection while TV and HDMI source device are powered on.</li> <li>Turn TV and HDMI device off. Turn TV on first and then HDMI device second.</li> </ul>	14, 15, 17, 21
Error notice comes to screen	<ul style="list-style-type: none"> <li>Try pressing "exit" on HDMI device remote control and then on TV remote to find source of the error OSD. If error persist or comes back even after pressing exit, try alternate HDMI input on TV.</li> <li>Unplug and re-plug HDMI connection while TV and HDMI source device are powered on.</li> <li>Turn TV and HDMI device off. Turn TV on first and then HDMI device second.</li> </ul>	9, 11, 14, 17
Normal picture, but no sound	<ul style="list-style-type: none"> <li>Check HDMI Audio settings under the HDMI device menu (of the HDMI source device). In order to get sound on TV, HDMI output must be set to PCM option.</li> </ul>	
No sound from TV Optical Out when using HDMI devices	<ul style="list-style-type: none"> <li>Change Digital Output selection.</li> <li>As an option, use audio optical output from HDMI source device directly to separate Audio Amplifier.</li> </ul>	36
Picture flickers during channel change w/ using HDMI Set Top Boxes	<ul style="list-style-type: none"> <li>This is normal operation from the source switching delay itself. It's not an indicator of a TV malfunction.</li> </ul>	
Picture is blurry or fuzzy	<ul style="list-style-type: none"> <li>If HDMI source is HD capable, ensure it's output is set to 1080i or 720p under HDMI device menu (of the HDMI source device).</li> </ul>	

# Reception Problems



## IGNITION NOISE:

Black spots or horizontal streaks may appear, picture may flutter or drift. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.



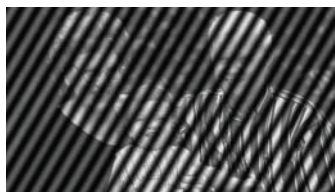
## GHOSTS:

Ghosts are caused by the television signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or some other objects. Changing the direction or position of the antenna may improve reception. Ghosting may also be caused by defects in the antenna system such as unshielded leads or connecting several sets to the same antenna without using multiple antenna couplers.



## SNOW:

If your receiver is located in the fringe area of a television station where the signal is weak, your picture may be marred by the appearance of small dots. When the signal is extremely weak, it may be necessary to install a special antenna to improve the picture.



## RADIO FREQUENCY INTERFERENCE:

The interference produces moving ripples or diagonal streaks, and in some cases, causes loss of contrast in the picture.

## PREVENTION OF AN OBSTACLE TO RADIO RECEIVERS

This television has been designed pursuant to the FCC class B Rules. This is to prevent a problem to Radio receivers. If this television causes a problem to Radio receivers, then take the following steps:

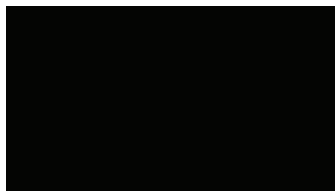
- Keep the television away from Radio.
- Adjust Radio antennas in order for the television not to receive interference.
- The antenna cable of Radio should be kept away from the television.
- Use a coaxial cable for antenna.

You can check if this television influences Radio receivers by turning off all other equipment other than the television. If you find a problem receiving Radio when using the television, check the instructions mentioned above.



## BLOCK NOISE or FREEZE (DIGITAL INPUT):

Fuzzy blocks may appear in some area or the whole area of the screen. This is usually caused by interference from automobile ignition systems, neon lamps, electrical drills, ghosting of the image and lost or weak receiving signals.



## BLACK SCREEN:

When using an antenna, weak digital signals will display a black screen. It may be necessary to upgrade your antenna.

### NOTE

The TV set can generate sound distortion in external devices such as a radio. Please separate radio equipment from the TV set to a considerable distance.

# Notes about Plasma Television

No.	ITEM	NOTES
1	Buzzing sound from Plasma display panel.	A buzzing sound may be heard when the plasma television is turned on in a very quiet room. This is due to the plasma panel drive circuit when it is functioning. The buzzing sound is normal and is not a malfunction.
2	Infrared interference	Some infrared rays are emitted from the plasma television panel that might affect the operation of other infrared controlling equipment.
3	Bright and dark spots	High precision technology is used to manufacture the plasma television. But there maybe points that do not illuminate, points that are too bright, and points with color different from that of the periphery. Please note that this is not a malfunction.
4	Residual Image	In some cases, residual images may remain after the short term display of still images when the picture changes.
5	Display panel surface temperature is too high.	The plasma display panel display images by means of electrical discharges inside the panel. This may cause the temperature of the panel surface to increase. Please note that this is not a malfunction.
6	Plasma Surface	A reinforced glass filter is installed over the plasma panel surface. A strong impact to the front panel risk a danger of glass breakage.
7	Transportation	Please transport the plasma television in it's packing box and placed in an upright position. Do not transport the plasma television in a horizontal position. This increases the possibility of panel breakage and pixel failure.
8	Granular spots	When a screen is seen at point-blank range, a random fine grain may be visible in the dark areas of the picture.
9	High temperature environment	High temperature affect the electric discharge/luminescence characteristic of the PDP panel. Do not place the plasma television in high temperature environments.
10	Operation	Operating altitude: 720 to 1,114hPa (6,194ft to -2,484ft). Operating temperature: 41°F to 95°F.
11	Storage	Storage altitude: 720 to 1,114hPa (6,194ft to -2,484ft). Storage temperature: 5°F to 140°F



# Features and Specifications

## Features:

- **New** Full HD1080p High-Definition Display (1920x1080p)
- **New** High Gloss Japan Black Frame
- **New** High Aperture Ultra-Black Panel
- **New** Energy Saving Light Sensor
- **New** PictureMaster™ HD VI Video Processor
  - **New** Cinema48™ for 24p HDMI™ Inputs
- **New** x.v.Color™
- **New** Vibrant/Standard Color Space
- **New** 4 Preset Color Temperatures with D.Cinema
- **New** Anti-Reflective Screen
  - High Contrast Black Stripe Filter
- **New** Power Swivel Stand
- **New** TV Guide On Screen™ Interactive Program Guide V9
- (3) HDMI™ (V.1.3 with x.v.Color™, CEC)
  - 1080p60, 1080p24 Input Compatible
- **New** Dynamic/Day/Night Picture Memories
- **New** Multi-Function Remote Control
  - Preprogrammed
- **New** Adjustable Power Indicator Light
- **New** Adjustable Audio Delay (Lip Sync)
- **New** Showroom Retail/Home Display Modes
- Smooth Motion Film Process
- Photo Input
- IR PassThru
- Picture-In-Picture
- MPEG Noise Reduction
- Game Mode

## Video:

- 1920 x 1080 Display Resolution
- High Contrast Black Stripe Filter
- Wide Viewing Angle
- Color Temperature Presets: High, Standard, Medium and D. Cinema.
- Multiple Screen Fill Modes: (4:3 Standard/4:3 Expanded/4:3 Zoom 1/ 4:3 Zoom 2/16:9 Standard1/Standard2/16:9 Zoom)<sup>1</sup>
- 4MB 10-bit 3D Y/C Comb Filter
- Picture Modes : Dynamic, Day and Night

## Audio:

- MTS Stereo/SAP
- Bass Boost
- Surround Sound
- 20W
- Soft Mute (50%)

## Inputs:

- Power Input . . . . . AC 120V, 60Hz
- Power Consumption
- Average Power: . . . . . 398 W
- Maximum Power: . . . . . 586 W, 4.90 A
- Antenna Input Impedance . . . . . 75 Ohm
- Channel Coverage . . . . . 191ch.
  - VHF-Band . . . . . 2~13
  - UHF-Band . . . . . 14~69
  - CATV Mid Band . . . . . A5~A1
  - Super Band . . . . . AI
  - Hyper Band . . . . . J-W
  - Ultra Band . . . . . W+1 - W+28
  - W+29 - W+94
- Television System . . . . . NTSC Standard
  - ATSC Standard (8 VSB, 64-QAM, 256-QAM)
- Video . . . . . 1.0Vp-p, 75 Ohm

- S-Video
  - Luminance(Y): . . . . . 1.0Vp-p, 75 Ohm
  - Chrominance(C): . . . . . 0.286Vp-p, 75 Ohm
- Component Video
  - Luminance(Y): . . . . . 1.0Vp-p, 75 Ohm
  - Chrominance(PB/PR): . . . . . 0.7Vp-p, 75 Ohm
- Audio Input Impedance . . . . . more than 20k Ohm
- Average Input Level. . . . . 470mVrms
- HDMI . . . . . (19 PIN)

## Outputs:

- Optical Out (Digital Audio) . . . . . 1 Optical Connector

## Supplied Accessories:

- Remote Control
- Batteries (AAA)
- 6' AC Power cord cable
- IR Out Cable
- Operating Guide
- TV Guide V9 User Manual
- Easy Graphic Guide
- Warranty Cards

## Optional Accessories:

- For U.S. and Canada Models:  
Please access our website: [www.hitachi.us/tv](http://www.hitachi.us/tv)

## Inputs/Outputs Jacks:

- Wideband Component Y, PB,PR. . . . . 2
- Composite Video . . . . . 3
- S-Video . . . . . 1
- Antenna (RF)Inputs. . . . . 1
- Optical Output . . . . . 1
- HDMI . . . . . 3
- Photo Input/Upgrade Card Slot . . . . . 1
- IR Out . . . . . 1
- Swivel Output . . . . . 1
- RS232C Interface . . . . . 1

## Specifications:

- Pixel Pitch (50"). . . . . 0.576(horiz.) x 0.580(vert.) mm.
- FCC class: . . . . . B for Consumer Use
- Power Requirements . . . . . 108-132VAC, 60Hz

<sup>1</sup> Screen mode availability varies by input format

HDTV Televisions display HDTV only when an HDTV source is available

All specifications, weights, and dimensions are subject to change without prior notice. Please access [www.hitachi.us/tv](http://www.hitachi.us/tv) for detailed specifications and dimensions for custom installations.

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**HDMI™**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

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**DOLBY**  
**DIGITAL**

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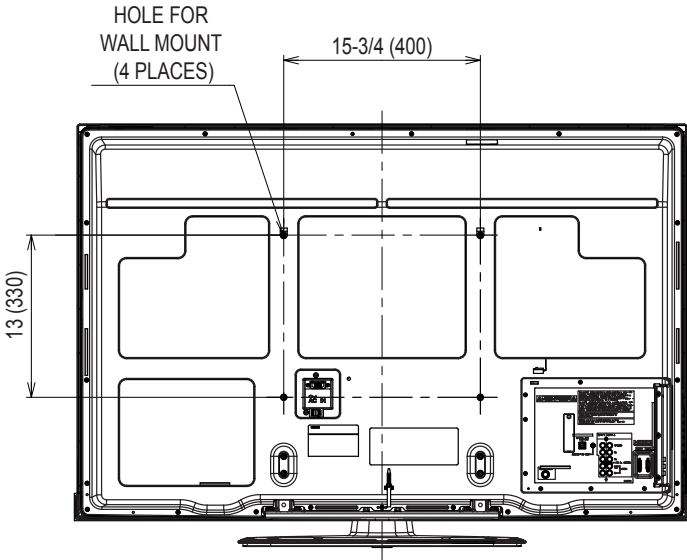
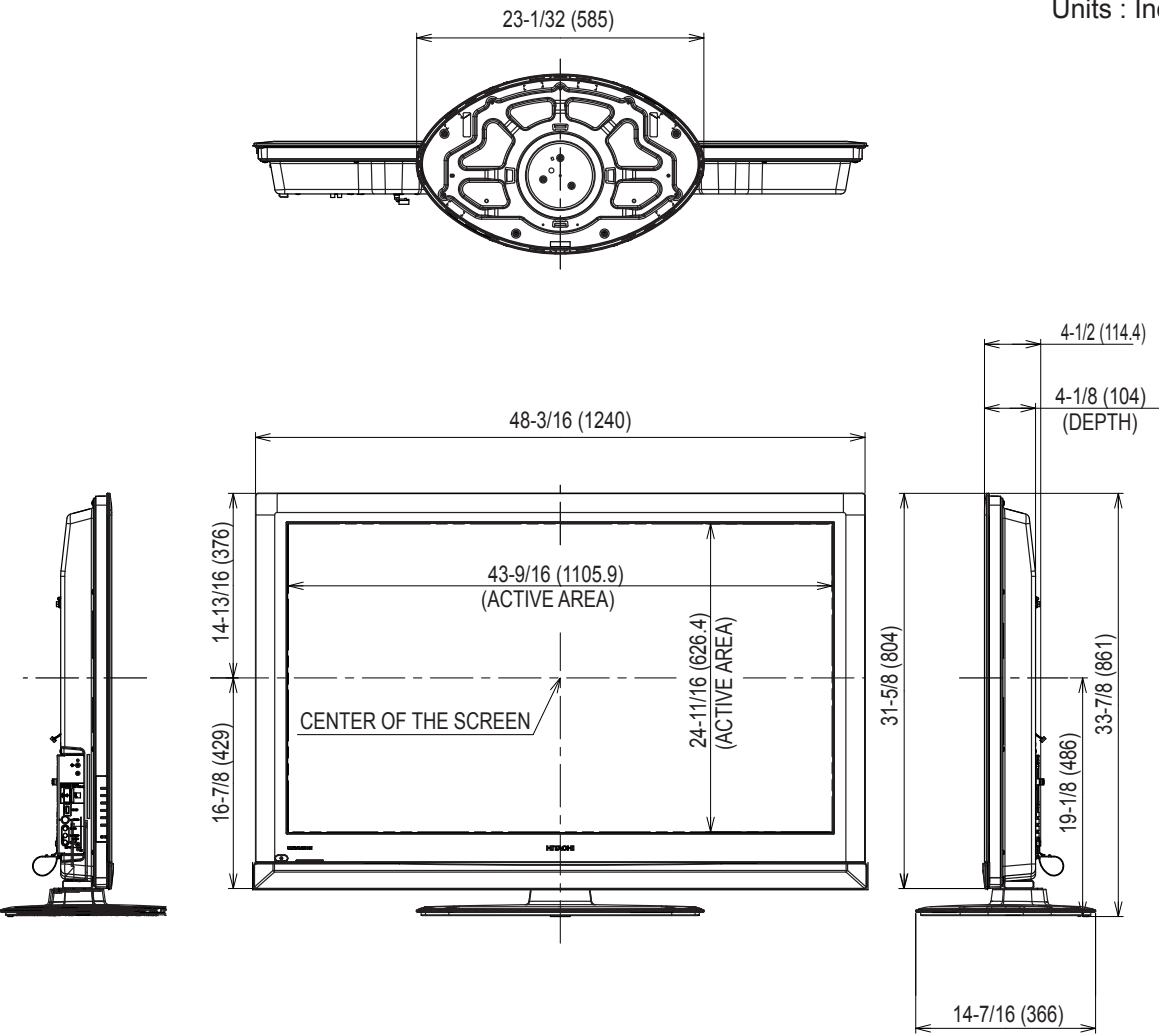
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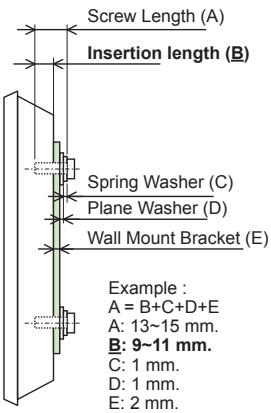
# Set Dimensions

P50V702 model (Includes Table Top Stand) Weight (lbs./kg): 103.9/47.2

Units : Inches (mm)



Rear View  
Use as Reference for Wall Mount Bracket



• The screw type :Thread ISO M6- (Metric type, do not use Standard type).

Side View  
Wall Mount Screw specification

## Service Information

**800.HITACHI**  
(800.448.2244)

Operational, hook up and  
warranty questions for your product.

**Monday ~ Sunday**  
**8:00 am - 8:30 pm CST**

[www.hitachi.us/tv](http://www.hitachi.us/tv)



**Sincere - Prompt - Efficient**

**HITACHI**  
Inspire the Next

### HITACHI HOME ELECTRONICS (AMERICA), INC.

HITACHI has made every effort to assure you hours of trouble free operation from your Hitachi product. Should you require service assistance with **OPERATIONAL, HOOK UP, TECHNICAL ASSISTANCE OR WARRANTY SUPPORT**, please contact our Support Hotline at **800.HITACHI (800.448.2244)**.

Our Support Hotline will provide you with the assistance you need and if necessary the location of the nearest Authorized Service Facility in your area. Please present proof of purchase and/or delivery receipts to the Hitachi Authorized Service Facility and service will be rendered in accordance with the terms of the limited warranty as stated on your warranty card or operating guide.

**Hitachi Home Electronics (America), Inc.**  
**Customer Service Support**  
**PO Box 3900**  
**Peoria, IL 61612**  
[customerservice.ce@hhea.hitachi.com](mailto:customerservice.ce@hhea.hitachi.com)

### HITACHI HOME ELECTRONICS (CANADA)

Should you have any questions regarding warranty, service, operation or technical assistance, please contact:

**In Canada: 800.HITACHI (800.448.2244)**

Monday~ Friday	9:00 am – 7:00 pm EST
Saturday	9:00 am – 5:00 pm EST

Pour de plus amples renseignements sur le service durant la période couverte par la garantie, sur le fonctionnement ou pour de l'assistance technique communiquez avec:

**Au Canada: 800.HITACHI (800.448.2244)**

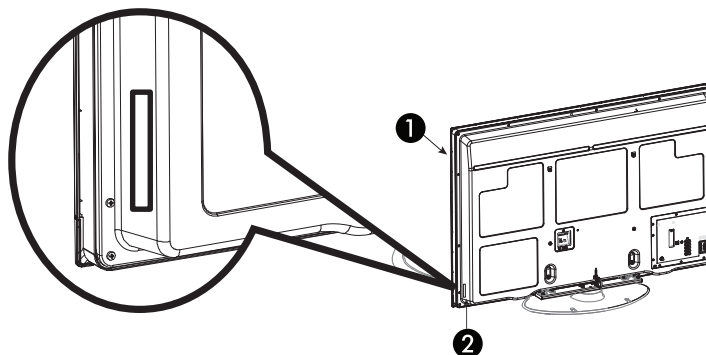
Lundi~ Vendredi	9:00 am – 7:00 pm L'EST
Samedi	9:00 am – 5:00 pm L'EST

**Hitachi Home Electronics (Canada)**  
**Customer Service Support**  
**PO Box 3900**  
**Peoria, IL 61612**

### Customer Record

The MODEL NAME and SERIAL NUMBER of this product is located on the backcover and also on the RIGHT SIDE of the set. Please follow the next steps to find this information and then record it in the space provided below and/or on the front cover of this operating guide for use in case you call 800.HITACHI. They will require this information in order to give you the proper support.

- 1 Look on the right side of the set
- 2 Locate the label where it shows the information related to MODEL NAME and SERIAL #.
- 3 800.HITACHI will require this information in order to give you the proper support regarding your questions.



Model Name \_\_\_\_\_

Serial Number \_\_\_\_\_

# Limited Warranty

Congratulations on your purchase of a new Hitachi display product.

Register your product online at [www.hitachi.us/tv](http://www.hitachi.us/tv) or mail the included warranty registration card:

## LIMITED WARRANTY

Hitachi Home Electronics (America), Inc. warrants this product in accordance with the terms and conditions applicable to the products identified below:

## Conditions of Hitachi Limited Warranty

This Hitachi display product (the "Product") is warranted to be free from defects in materials and workmanship beginning on the date of purchase by the original owner and continuing for the duration of the applicable time periods specified below. If the Product is found to be defective, Hitachi will repair or replace (at Hitachi's option) defective parts at no charge, subject to the conditions of this Limited Warranty. If the original owner rejects, refuses or otherwise does not accept Hitachi's offer to repair or replace such defective parts under this Limited Warranty, this Limited Warranty shall be void and of no further force or effect. This Limited Warranty extends to the original owner only and is not transferable, and such owner must provide a dated sales receipt for the Product to qualify for parts or service under this Limited Warranty. The original owner must notify Hitachi of a defect claim during the applicable Limited Warranty period for this Limited Warranty to be effective. This Limited Warranty is valid only in the U.S.A. and Puerto Rico.

LCD Flat Panel Televisions  
LCD Flat Panel Monitors  
Plasma Televisions  
Plasma Monitors

**PARTS:** The Limited Warranty period for parts is 1 year from the date of original purchase. During the Limited Warranty period for parts, Hitachi will replace defective parts with new or rebuilt parts (at Hitachi's option) at no charge for such parts. Any replacement part will be warranted for the remainder of the original warranty period applicable to the part replaced.

**LABOR:** The Limited Warranty period for labor is 1 year from the date of original purchase. During the Limited Warranty period for labor, Hitachi will repair or replace (at Hitachi's option) defective parts without charge for labor.

**SERVICE LOCATION:** In-home warranty service, which includes either in-home repair or free pick-up and delivery (at Hitachi's option), applies to all Hitachi products except: (i) 26-inch and smaller LCD Flat Panel Televisions or LCD Flat Panel Monitors; (ii) Products located outside the U.S.A. or Puerto Rico; (iii) Products located more than seventy-five (75) driving miles from Hitachi's nearest Authorized Service Facility. If the foregoing clauses (i), (ii), (iii) apply, then the Product owner will be responsible for bringing/delivering the Product to a Hitachi Authorized Service Facility and, following warranty service, retrieving the Product from such Authorized Service Facility.



CERTIFIED  
SERVICE  
CENTER

Hitachi is a proud supporter of the Certified Service Center program. Businesses who display the CSC certification mark have demonstrated that they operate in accordance with the high standards of professionalism prescribed by the Consortium for Certified Service Centers.

## 800-HITACHI (800-448-2244)

Please call 800-HITACHI (800-448-2244) for operational, hook up, warranty questions or the location of your nearest Hitachi Authorized Service Facility or Parts Distributor.

## Visit our website and register your product online:

Hitachi's website features a wealth of information on Hitachi products and technologies, as well as downloadable operating guides and other useful information.

To register your new Hitachi display product online, go to:

[www.hitachi.us/tv](http://www.hitachi.us/tv)

Support and Contact/Warranty Registration

## IMPORTANT:

Before using or installing your Product, please complete this form and attach your sales receipt and retain them for your records. This will help facilitate proper warranty coverage.

MODEL NO.	SERIAL NO.
DEALER NAME	DATE OF PURCHASE
DEALER ADDRESS	
CITY	STATE

## Warranty Limitations

### This Hitachi Limited Warranty does not cover:

- Any Product that has been modified or repaired in a manner not previously authorized by Hitachi in writing.
- Any Product whose serial number has been removed, altered, replaced, defaced or rendered illegible.
- Any defect, malfunction, or failure caused by or resulting from improper or unauthorized service, maintenance or repair.
- Damage resulting from abuse, misuse, mishandling, neglect or damage caused by exposure to hostile operating environments such as areas containing dust and/or smoke.
- Damage caused by power surges, accidents, natural disasters or any other events or circumstances outside Hitachi's control.
- Any Product used in any manner inconsistent with the acceptable set-up, usage, safety or installation configurations identified in the Product's Operating Guide.
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- Product repairs (including any product whose case has been opened), or part replacements provided or installed, by any person other than an Authorized Hitachi Service Facility Representative.
- Improper uncrating, set-up or installation or any misadjustments caused by user-operated controls.
- Any labor or costs associated with removing the Product from a custom cabinet or other specialized product installation that impedes direct and immediate removal of the Product from the owner's premises (must be arranged and paid by the owner).
- Product cabinets, cabinet parts, knobs, batteries or accessories.
- Product screens that have been cleaned by any method other than as specified in the Product's Operating Guide.
- Normal usage, degraded brightness caused by backlight aging and/or cell defects or ordinary wear and tear, including, without limitation, scratches or marks on the Product's screen, cabinet or the appearance of bright or dark screen pixels.
- Any Product returned for service that is damaged due to improper packaging, mishandling or shipping. (IMPORTANT: When shipping any Product to a Hitachi Authorized Service Centers, Product owner must package it securely in the original shipping container or its equivalent to prevent damage. The Product must be returned with the shipping charges prepaid and proof of purchases included in the shipping container. Failure to properly package such product during such shipment will void all warranties.)
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That's all there is to it!

# Appendixes

## Appendix A: Picture Format for Each Input Source

Aspect Specifications

Yes: Selectable    --: No Selectable

Input Signal			Auto Aspect	Aspect Video ID	Aspect						
					16:9 Standard 1	16:9 Standard 2	16:9 Zoom	4:3 Standard	4:3 Expanded	4:3 Zoom 1	4:3 Zoom 2
ANT Analog	Video	NTSC	--	4x3	Yes	--	Yes	Yes	Yes	Yes	Yes
ANT Digital	YCbCr	480p 480i	--	16x9	Yes	--	Yes	--	Yes	--	--
			--	4x3	--	--	--	Yes	Yes	Yes	Yes
	YPbPr	1080i/720p	--	16x9	Yes	Yes	Yes	--	Yes	--	--
Input 1	YPbPr	1080i/720p	Auto ON	16x9	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
			Auto OFF	--							
		No Signal	--								
	Video	NTSC	Auto ON	16x9	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
		Auto OFF	--	Yes	--	Yes	Yes	Yes	Yes	Yes	
	Input 2	YPbPr	1080i/720p	Auto ON	16x9	Yes	Yes	Yes	--	Yes	--
480p 480i					Yes Initial	--	Yes	--	--	--	--
Letter					--	--	--	Yes	Yes	Yes Initial	Yes
4x3					--	--	--	Yes	Yes Initial	Yes	Yes
			No ID	Yes	--	Yes	Yes	Yes	Yes	Yes	
			Auto OFF	--							
No Signal		--									
Video		NTSC	Auto ON	16x9	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
		Auto OFF	--	Yes	--	Yes	Yes	Yes	Yes	Yes	
Input 3	Video S-Video	NTSC	Auto ON	16x9	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
				Auto OFF	--	Yes	--	Yes	Yes	Yes	Yes
HDMI 1 (Input1-DVI)	HDMI (DVI)	1080p/ 1080i/720p	Auto ON	16x9	Yes	Yes	Yes	--	Yes	--	--
				480p 480i	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
	Auto OFF	--									
HDMI 2 (Input2-DVI)	HDMI (DVI)	1080p/ 1080i/720p	Auto ON	16x9	Yes	Yes	Yes	--	Yes	--	--
				480p 480i	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
	Auto OFF	--									
HDMI 3 (Input3-DVI)	HDMI (DVI)	1080p/ 1080i/720p	Auto ON	16x9	Yes	Yes	Yes	--	Yes	--	--
				480p 480i	Yes Initial	--	Yes	--	--	--	--
				Letter	--	--	--	Yes	Yes	Yes Initial	Yes
				4x3	--	--	--	Yes	Yes Initial	Yes	Yes
				No ID	Yes	--	Yes	Yes	Yes	Yes	Yes
	Auto OFF	--									
Horizontal Expansion		16x9	105%	100%	133%	--	133%	--	--		
		4x3	105%	100%	133%	75%	100%	100%	133%		
Vertical Expansion			105%	100%	133%	Yes	110%	133%	176%		

# Appendixes

## Appendix B: Picture-In-Picture Specification

PIP Mode	Main	Sub	Digital (Air or Cable)						Component/Composite/S-IN/HDMI					
			1080i 16x9	720p 16x9	480p 16x9	480p 4x3	480i 16x9	480i 4x3	1080i/p 16x9	720p 16x9	480p 16x9	480p 4x3	480i 16x9	480i 4x3
POP	Digital (Air or Cable)	1080i	16x9											
		720p	16x9											
		480p	16x9											
		480p	4x3						Yes	Yes	Yes	Yes	Yes	Yes
		480i	16x9											
		480i	4x3						Yes	Yes	Yes	Yes	Yes	Yes
	Component Composite S-IN HDMI	1080i/p	16x9											
		720p	16x9											
		480p	16x9	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1					
		480p	4x3	Yes	Yes	Yes	Yes	Yes	Yes					
		480i	16x9	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1	Yes*1					
PIP 16x9	Digital (Air or Cable)	480i	4x3	Yes	Yes	Yes	Yes	Yes	Yes	--	--	--		
		1080i	16x9							Yes	Yes	Yes*2		Yes*2
		720p	16x9							Yes	Yes	Yes*2		Yes*2
		480p	16x9							Yes	Yes	Yes*2		Yes*2
		480p	4x3											
		480i	16x9							Yes	Yes	Yes*2		Yes*2
		480i	4x3											
	Component Composite S-IN HDMI	1080i/p	16x9	Yes	Yes	Yes		Yes						
		720p	16x9	Yes	Yes	Yes		Yes						
		480p	16x9	Yes*2	Yes*2	Yes*2		Yes*2						
		480p	4x3											
		480i	16x9	Yes*2	Yes*2	Yes*2		Yes*2						
PIP 4x3	Digital (Air or Cable)	480i	4x3											
		1080i	16x9								Yes*1	Yes	Yes*1	Yes
		720p	16x9								Yes*1	Yes	Yes*1	Yes
		480p	16x9								Yes*1	Yes	Yes*1	Yes
		480p	4x3											
		480i	16x9								Yes*1	Yes	Yes*1	Yes
	Component Composite S-IN HDMI	480i	4x3											
		1080i/p	16x9			Yes		Yes						
		720p	16x9			Yes		Yes						
		480p	16x9			Yes*2		Yes*2						
		480p	4x3											
SPLIT	Digital (Air or Cable)	480i	16x9			Yes*2		Yes*2						
		1080i	16x9							Yes	Yes	Yes	Yes	Yes
		720p	16x9							Yes	Yes	Yes	Yes	Yes
		480p	16x9							Yes	Yes	Yes	Yes	Yes
		480p	4x3							Yes	Yes	Yes	Yes	Yes
		480i	16x9							Yes	Yes	Yes	Yes	Yes
	Component Composite S-IN HDMI	480i	4x3							Yes	Yes	Yes	Yes	Yes
		1080i/p	16x9	Yes	Yes	Yes	Yes	Yes	Yes					
		720p	16x9	Yes	Yes	Yes	Yes	Yes	Yes					
		480p	16x9	Yes	Yes	Yes	Yes	Yes	Yes					
		480p	4x3	Yes	Yes	Yes	Yes	Yes	Yes					

Yes\*1: Auto Aspect OFF

Yes\*2: Auto Aspect ON

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